

# CITY COUNCIL REPORT



Meeting Date: **March 22, 2011**  
General Plan Element: ***Public Services & Facilities***  
General Plan Goal: ***Provide a safe environment for all citizens, visitors and private interests***

## **ACTION**

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Subject statement: To adopt the revised or "second" amendments to the 2006 International Building Code, 2006 International Residential Code, 2006 International Mechanical Code, 2005 National Electric Code and the 2006 ICC Electric Code Administrative Provisions.

Request: City Council is requested to adopt:

Ordinance 3928 the Second Amendments to the International Building Code, 2006 Edition, and Resolution 8590 declaring the document entitled "City of Scottsdale Second Amendments to the International Building Code, 2006 Edition" a public record.

Ordinance 3929 the Second Amendments to the International Residential Code, 2006 Edition, and Resolution 8594 declaring the document entitled "City of Scottsdale Second Amendments to the International Residential Code for One- and Two-Family Dwellings, 2006 Edition", a public record.

Ordinance 3930 the Second Amendments to the International Mechanical Code, 2006 Edition.

Ordinance 3931 the Second Amendments to the National Electric Code, 2005 Edition and the Second Amendments to the ICC Electric Code Administrative Provisions, 2006 Edition, and Resolution 8596 declaring those certain documents entitled "City of Scottsdale Second Amendments to the National Electric Code, 2005 Edition and Second Amendments to the ICC Electric Code Administrative Provisions, 2006 Edition" public records.

### **Related Policies, References:**

Replace current Ordinance 3735, 3736, 3737 and 3744.

## **OWNER**

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City of Scottsdale

## APPLICANT CONTACT

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Michael Clack, Director of Community Development; [mclack@scottsdaleaz.gov](mailto:mclack@scottsdaleaz.gov)

## LOCATION

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Citywide

## BACKGROUND

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Since incorporation, the City of Scottsdale had adopted codes published by the International Conference of Building Officials (ICBO), now known as the International Code Council (ICC). The 2006 edition of ICC codes is the current edition of these documents adopted by the city. Each edition has been adopted with the appropriate amendments that specifically adjust these codes to the climate and local conditions in Scottsdale.

On July 10, 2007, Scottsdale adopted the 2006 edition of the codes and they remain the documents under which Scottsdale currently operates. This adoption will be the revised “Second” amendments to these adopted codes.

This consideration will:

- update city building codes to be consistent with industry standards and insure safety and consistency in all construction activity in Scottsdale;
- maintain the current favorable rating with the Insurance Services Office, which established criteria for setting insurance premiums;
- simplify residential information and documentation by reformatting codes for clarity and ease of use and address energy conservation.

## APPLICANTS PROPOSAL

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### Goal/Purpose of Request

To adopt the revised or “second” amendments to the 2006 International Building Code, 2006 International Residential Code, 2006 International Mechanical Code, 2005 National Electric Code and the 2006 ICC Electric Code Administrative Provisions.

### Development Information

N/A

## IMPACT ANALYSIS

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This proposal will update the Building Code, Residential Code, Mechanical Code, Fire Code and the Electrical Code.

The following summarizes the content of each code:

- The building code contains life-safety requirements for commercial design. It has provisions for structural design of concrete, steel, masonry, wood, etc. It has fire resistive and exiting requirements designed to protect the occupants, firefighters, and the structure.
- The residential code contains all of the necessary code requirements for single-family homes. It includes structural, electrical, HVAC, and plumbing. Structural systems covered include wood, steel, masonry and concrete/foam composite designs.
- The mechanical code provides requirements for heating, cooling and ventilation in commercial buildings.
- The electrical code contains all the necessary code requirements related to installing, altering, reconstructing or repairing electrical wiring on any building, structure, swimming pool or mechanical equipment.

**Significant issues to be addressed.**

This is an update of existing codes. The basic requirements of the existing codes have been preserved, with improvements to the following significant areas:

1. The building code includes, in one manual, all structural and life-safety requirements for commercial and multi-family buildings.
2. The residential component of the building code is a comprehensive document which includes all code requirements and diagrammatic references necessary for single-family home construction. It provides ease of use/referral for homeowners, architects, engineers and builders.
3. The mechanical code includes a requirement for outside air intakes to be placed in secure locations to protect building inhabitants from potential air contamination.
4. Each of the codes address energy conservation provisions including insulation values, air infiltration, solar heat gain, and inside air quality.

The adoption of these revised code amendments will continue the city's rating with the Insurance Services Office, ensuring the lowest premium rates for all property owners, residential and commercial, throughout the city.

**Policy implications.**

Since incorporation, the City of Scottsdale had adopted codes published by the International Conference of Building Officials (ICBO), now known as the International Code Council (ICC). The 2006 edition of ICC codes is the current edition of these documents adopted by the city. Each edition has been adopted with the appropriate amendments that specifically adjust these codes to the climate and local conditions in Scottsdale.

**Community involvement.**

The 2006 International Building Codes were studied by a national organization of building officials and included architects, engineers, utility representatives, contractors and others.

The Scottsdale Building Advisory Board of Appeals has reviewed these documents and proposed second amendments as part of their public hearing process. The Fire Department has been involved in coordinating the Building Code second amendments, in order to maintain a seamless set of codes that offer maximum fire safety protection for building occupants and firefighters. In addition, these codes have been evaluated by numerous building regulatory agencies throughout the United States and were found to be the most acceptable codes for adoption.

## **OTHER BOARDS & COMMISSIONS**

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The Building Advisory Board of Appeals unanimously recommends, by a vote of 7 to 0, that the City Council approve the Action. There was no public comment.

## **OPTIONS & STAFF RECOMMENDATION**

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### **Recommended Approach**

Adopt Ordinance 3928 and Resolution 8590 - revised Building Code; Ordinance 3929 and Resolution 8594 - revised Residential Code; Ordinance 3930 - revised Mechanical Code; Ordinance 3931 and resolution 8596 revised Electrical Code.

### **Description of Option B**

The City could remain with the current amendments to the 2006 edition of the codes which could cause the Insurance Services Office to downgrade the city's rating, resulting in higher premium rates for property owners.

### **Description of Option C**

The City Council could continue this item for additional information.

## **RESPONSIBLE DEPARTMENT(S)**

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Planning, Neighborhood & Transportation; Building Plan Review

## **STAFF CONTACTS (S)**

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Ed Peaser, CBO, Plan Review Manager; [epeaser@scottsdaleaz.gov](mailto:epeaser@scottsdaleaz.gov)

**APPROVED BY**

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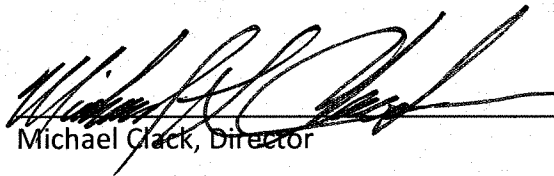


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3/3/2011

Date

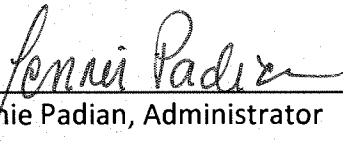


Michael Clack, Director

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3/3/2011

Date



Connie Padian, Administrator

[cpadian@scottsdaleaz.gov](mailto:cpadian@scottsdaleaz.gov); 480-312-2664

3/3/2011

Date

**ATTACHMENTS**

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1. Ordinance No. 3928, Second Amendments to the 2006 International Building Code
2. Resolution No. 8590, Second Amendments to the 2006 International Building Code
3. Ordinance No. 3929, Second Amendments to the 2006 International Residential Code
4. Resolution No. 8594, Second Amendments to the 2006 International Residential Code
5. Ordinance No. 3930, Second Amendments to the 2006 International Mechanical Code
6. Ordinance No. 3931, Second Amendments to the 2005 National Electric Code
7. Resolution No. 8596, Second Amendments to the 2005 National Electric Code

ORDINANCE NO. 3928

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SCOTTSDALE, MARICOPA COUNTY, ARIZONA, AMENDING CHAPTER 31, ARTICLE III SECTION 31-31 (1) AND REPEALING SECTION 31-32(a) AND ADOPTING A NEW SECTION 31-32(a) OF THE SCOTTSDALE REVISED CODE RELATING TO THE BUILDING CODE

BE IT ORDAINED by the City Council of the City of Scottsdale, Arizona, as follows:

Section 1. Section 31-31(1) of the Scottsdale Revised Code is hereby amended and shall read as follows:

**Sec. 31-31. Adoption.**

The following documents are adopted by reference and shall be the building code of the city. Three (3) copies of each shall at all times remain in the office of the city clerk and be open to inspection.

1) The International Building Code, 2006 Edition including appendices, as published by the International Code Council, Inc., declared a public record by Resolution #7260 of the City of Scottsdale, and the City of Scottsdale Second Amendments to the 2006 International Building Code, declared a public records by Resolution ~~#7260~~ 8590 of the City of Scottsdale, are hereby referred to, adopted and made a part hereof as if fully set out in this ordinance

Section 2. Section 31-32(a) **Amendments** of the Scottsdale Revised Code is hereby repealed and replaced by a new Section 31-32(a), which shall read as specified in that certain document entitled "City of Scottsdale Second Amendments to the 2006 International Building Code," declared to be a public record by Resolution #8590 of the City of Scottsdale, and hereby referred to, adopted and made a part hereof as if fully set out in this Ordinance.

Section 3. Any person found guilty of violating this Ordinance shall, in addition to any other applicable penalty, be subject to the following:

**105.6 Suspension or revocation.** The building official is authorized to suspend or revoke a permit issued under the provisions of this code wherever the permit is issued in error or on the basis of incorrect, inaccurate or incomplete information, or in violation of any ordinance or regulation or any of the provisions of this code.

**110.4 Revocation.** The building official is authorized to, in writing, suspend or revoke a certificate of occupancy or completion issued under the provisions of this code wherever the certificate is issued in error, or on the basis of incorrect information supplied, or where it is determined that the building or structure or portion thereof is in violation of any ordinance or regulation or any of the provisions of this code.

**113.4 Violation penalties.** Any person who violates a provision of this code or fails to comply with any of the requirements thereof or who erects, constructs, alters or repairs a building or structure in violation of the approved construction documents or directive of the building official, or of a permit or certificate issued under the provisions of this code, shall be subject to the penalties as prescribed by law.

Section 4. The repeal of any provision of the Scottsdale Revised Code effectuated by this Ordinance does not affect the rights and duties that matured or penalties that were incurred and proceedings that were begun before the effective date of this Ordinance.

Section 5. If any section, subsection, sentence, clause, phrase or portion of this Ordinance or any part of these Second Amendments to the 2006 International Building Code, adopted herein by reference is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions thereof. If there is any conflict or inconsistency between the provisions of this Ordinance, the more restrictive provisions apply.

Section 6. The effective date of this Ordinance shall be thirty (30) days after adoption.

PASSED AND ADOPTED BY THE Council of the City of Scottsdale, Maricopa County, Arizona, this \_\_\_\_ day of \_\_\_\_\_, 2011.

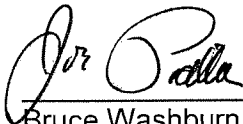
ATTEST:

CITY OF SCOTTSDALE,  
a municipal corporation

\_\_\_\_\_  
Carolyn Jagger  
City Clerk

\_\_\_\_\_  
W.J. "Jim" Lane  
Mayor

APPROVED AS TO FORM:  
OFFICE OF THE CITY ATTORNEY



\_\_\_\_\_  
Bruce Washburn, City Attorney  
By Joe Padilla, Sr. Assistant City Attorney

RESOLUTION NO. 8590

A RESOLUTION OF THE CITY OF SCOTTSDALE, MARICOPA COUNTY, ARIZONA, DECLARING AS A PUBLIC RECORD THAT CERTAIN DOCUMENT FILED WITH THE CITY CLERK OF THE CITY OF SCOTTSDALE AND ENTITLED "CITY OF SCOTTSDALE SECOND AMENDMENTS TO THE 2006 INTERNATIONAL BUILDING CODE"

WHEREAS, on July 10, 2007, the City of Scottsdale adopted the 2006 Edition of the International Building Code and the City of Scottsdale Amendments to the 2006 International Building Code; and

WHEREAS, it is necessary to repeal the City of Scottsdale Amendments to the 2006 International Building Code and adopt the City of Scottsdale Second Amendments to the 2006 International Building Code; and

WHEREAS, State Law permits cities to declare documents a public record.

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Scottsdale as follows:

Section 1. That certain document entitled "City of Scottsdale Second Amendments to the 2006 International Building Code," is hereby declared to be a public record and three copies are ordered to remain on file in the office of the City Clerk and kept available for public use and inspection.

PASSED AND ADOPTED by the Council of the City of Scottsdale this \_\_\_\_\_ day of \_\_\_\_\_, 2011.

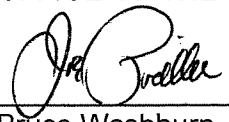
ATTEST:

CITY OF SCOTTSDALE, an  
Arizona municipal corporation

\_\_\_\_\_  
Carolyn Jagger  
City Clerk

\_\_\_\_\_  
W.J. "Jim" Lane  
Mayor

APPROVED AS TO FORM:  
OFFICE OF THE CITY ATTORNEY

  
\_\_\_\_\_  
Bruce Washburn, City Attorney  
By Joe Padilla, Sr. Assistant City Attorney

ATTACHMENT #2



**Second Amendments to the  
2006 International Building Code**

**BUILDING CODE SECOND AMENDMENTS**

**Ordinance No. 3928**

**PLANNING, NEIGHBORHOOD & TRANSPORTATION  
DEPARTMENT**

## **Section 31-32(a) – Amendments**

***The International Building Code, 2006 Edition, adopted by Scottsdale Revised Code Section 31-31(1) is amended in the following respects:***

### **CHAPTER 1 - ADMINISTRATION**

#### **SECTION 101 - GENERAL**

##### **101.1 Title.**

These regulations shall be known as the Building Code of the City of Scottsdale, hereinafter referred to as "this code."

##### **101.2 Scope.**

The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures.

**Exception:** Detached one- and two-family dwellings and multiple single-family dwellings which meet the definition and requirements of townhouses in the IRC, not more than three stories above grade plane in height each with a separate means of egress and their accessory structures shall comply with the International Residential Code, except where reference is made to this code.

##### **101.2.1 Appendices.**

Provisions in the appendices shall not apply unless specifically adopted.

The following appendices are adopted:

#### **Appendix J – Grading**

##### **Section J103.2 Exemptions is amended by the following:**

1. Grading in an isolated, self-contained area, provided there is no danger to the public, and that such grading will not adversely affect adjoining properties, and does not involve the import or export of material. These requirements shall apply to both commercial and residential property and enforceable by any building, public works, code enforcement or drainage city official or inspector.

##### **101.3 Intent.**

The purpose of this code is to establish the minimum requirements to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, sanitation, adequate light and ventilation, energy conservation, and safety to life and property from fire and other hazards attributed to the built environment and to provide safety to fire fighters and emergency responders during emergency operations.

##### **101.4 Referenced codes.**

The other codes listed in Sections 101.4.1 through 101.4.7 and referenced elsewhere in this code shall be considered part of the requirements of this code to the prescribed extent of each such reference.

#### **101.4.1 Electrical.**

The provisions of the ICC Electrical Code in association with the National Electric Code as amended and adopted in Scottsdale Revised Code, Chapter 31, Article IV.

#### **101.4.2 Gas.**

The provisions of the International Fuel Gas Code shall apply to the installation of gas piping from the point of delivery, gas appliances and related accessories as covered in this code. These requirements apply to gas piping systems extending from the point of delivery to the inlet connections of appliances and the installation and operation of residential and commercial gas appliances and related accessories.

Chapter 1, Section 101.2 through 101.2.5 of the IFGC is retained. The remaining portions of Chapter 1 – Administration is deleted and replaced with Chapter 1 of the IBC as amended and adopted in Scottsdale Revised Code, Chapter 31, Article III.

##### **101.4.2.1 Appendices**

The following appendices are adopted.

1. Appendix A – Sizing And Capacities Of Gas Piping
2. Appendix B – Sizing Of Venting Systems Serving Appliances Equipped With Draft Hoods, Category I Appliances, And Appliances Listed For Use With Type B Vents
3. Appendix C – Exit Terminals Of Mechanical Draft And Direct-Vent Venting Systems

*Section 503.6.4 Gas Vent Terminations is revised by adding the following exception:*

#### **503.6.4 Gas vent terminations.**

A gas vent shall terminate in accordance with one of the following:

1. Gas vents that are 12 inches (305 mm) or less in size and located not less than 8 feet (2438 mm) from a vertical wall or similar obstruction shall terminate above the roof in accordance with Figure 503.6.4.

Exception: For one and two family dwellings with roof slopes of 7/12 or less, Type B or BW gas vents eight (8) inches in size or smaller shall be permitted to terminate 12 inches above the roof, and at not less than four (4) feet from a vertical wall or similar obstruction.

#### **101.4.3 Mechanical.**

The provisions of the International Mechanical Code as amended and adopted in the Scottsdale Revised Code, Chapter 31, Article VI shall apply to the installation, alterations, repairs and replacement of mechanical systems, including equipment, appliances, fixtures, fittings and/or appurtenances, including ventilating, heating, cooling, air-conditioning and refrigeration systems, incinerators and other energy-related systems.

#### **101.4.4 Plumbing.**

The provisions of the Plumbing Code as amended and adopted in the Scottsdale Revised Code, Chapter 31, Article VII shall apply to the installation, alteration, repair and

replacement of plumbing systems, including equipment, appliances, fixtures, fittings and appurtenances, and where connected to a water or sewage system and all aspects of a medical gas system. The provisions of the Plumbing Code as amended and adopted in the Scottsdale Revised Code, Chapter 31, Article VII and the Maricopa County Health Department shall apply to private sewage disposal systems.

#### **101.4.5 Property maintenance.**

The provisions of the International Property Maintenance Code shall apply to existing structures and premises; equipment and facilities; light, ventilation, space heating, sanitation, life and fire safety hazards; responsibilities of owners, operators and occupants; and occupancy of existing premises and structures contained in the Scottsdale Revised Code, Chapter 18. The International Property Maintenance code is amended as follows:

*Chapter 1 – ADMINISTRATION – of the International Property Maintenance Code is amended as follows:*

*Section 101 – GENERAL is amended with the following:*

##### **101.1 Title.**

These regulations shall be known as the Property Maintenance Code of city of Scottsdale, hereinafter referred to as “this code.”

*Section 103 – DEPARTMENT OF PROPERTY MAINTENANCE INSPECTION is amended with the following:*

#### **SECTION 103 –PROPERTY MAINTENANCE INSPECTION**

##### **103.1 General.**

Property maintenance inspection may be performed by any enforcement officer whether a building official, fire official, code enforcement personal or police officer of the city of Scottsdale. The building official shall be the executive official in charge thereof.

##### **SECTION 103.5 Fees.**

The fees for activities and services performed by the department in carrying out its responsibilities under this code shall be as indicated in the following schedule:  
Chapter 46 of Scottsdale Revised Code Section 46-141.

*Section 108 – UNSAFE STRUCTURES AND EQUIPMENT is amended with the following:*

##### **108.1.2 Unsafe equipment.**

Unsafe equipment includes any boiler, heating equipment, cooling equipment, elevator, moving stairway, electrical wiring or device, flammable liquid containers or other equipment on the premises or within the structure which is in such disrepair or condition that such equipment is a hazard to life, health, property or safety of the public or occupants of the premises or structure.

##### **108.1.3 Structure unfit for human occupancy.**

A structure is unfit for human occupancy whenever the code official finds that such structure is unsafe, unlawful or, because of the degree to which the structure is in disrepair or lacks maintenance, is insanitary, vermin or rat infested, contains filth and contamination, or lacks ventilation, illumination, sanitary or

heating and cooling facilities or other essential equipment required by this code, or because the location of the structure constitutes a hazard to the occupants of the structure or to the public.

*Section 602 HEATING FACILITIES is amended by the following:*

## **SECTION 602 HEATING AND COOLING FACILITIES**

### **602.1 FACILITIES REQUIRED**

Heating and cooling facilities shall be provided in structures as required by this section.

### **602.2 RESIDENTIAL OCCUPANCIES**

Dwellings shall be provided with heating and cooling facilities as stated in section 602.1.1 & 602.2.2.

#### **602.1.1 HEATING**

Interior spaces intended for human occupancy shall be provided with active or passive heating facilities capable of maintaining a room temperature of 68°F (20°C) in all habitable rooms, bathrooms and toilet rooms based on the winter outdoor design temperature of 34°F (01°C) for Phoenix locality, indicated in Appendix D of the International Plumbing Code. Cooking appliances shall not be used to provide space heating to meet the requirements of this section.

**Exception:** Interior spaces where the primary purpose is not associated with human comfort.

#### **602.1.2 COOLING**

Interior spaces intended for human occupancy shall be provided with cooling facilities capable of maintaining a room temperature of 85°F (29°C) in all habitable rooms, bathrooms and toilet rooms based on the summer outdoor design temperature of 107°F for Phoenix locality, indicated in Appendix D of the International Plumbing Code.

**Exception:** Interior spaces where the primary purpose is not associated with human comfort.

### **602.3 HEATING & COOLING SUPPLY**

Every owner and operator of any building who rents, leases or lets one or more dwelling units or sleeping units on terms, either expressed or implied, shall comply with section 602.

**Exception:** Interior spaces where the primary purpose is not associated with human comfort.

### **602.6 MAINTENANCE**

All heating and cooling equipment shall be maintained in good working order so the requirements of Section 602.1.1 & 602.1.2 are met.

*Section 111 Means of Appeal is amended by the following:*

Section 111 – MEANS OF APPEAL - of the Property Maintenance Code is deleted in its entirety and replaced with section 112 – Board of Appeals - of Chapter 1 of the IBC as adopted in Scottsdale Revised Code, Chapter 31, Article III

**101.4.6 Fire prevention.**

The provisions of the International Fire Code as amended and adopted in the Scottsdale Revised Code, Chapter 36, Article II shall apply to matters affecting or relating to structures, processes and premises from the hazard of fire and explosion arising from the storage, handling or use of structures, materials or devices; from conditions hazardous to life, property or public welfare in the occupancy of structures or premises; and from the construction, extension, repair, alteration or removal of fire suppression and alarm systems or fire hazards in the structure or on the premises from occupancy or operation.

**101.4.7 Energy.**

The provisions of the International Energy Conservation Code shall apply to all matters governing the design and construction of buildings for energy efficiency.

**101.4.8 Bleachers**

The provisions of the ICC 300 – 2007 shall apply to bleachers, folding and telescopic seating, and grandstands and shall be considered part of this code.

**101.4.9 Existing Buildings.**

The provisions of the International Existing Building Code shall apply to the repair, alteration, change of occupancy and relocation of existing buildings. Chapter 1 – Administration is deleted and replaced with Chapter 1 of the IBC as amended and adopted in Scottsdale Revised Code, Chapter 31, Article III.

**SECTION 102 - APPLICABILITY**

**102.1 General.**

Where, in any specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable.

**102.2 Other laws.**

The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law.

**102.3 Application of references.**

References to chapter or section numbers, or to provisions not specifically identified by number, shall be construed to refer to such chapter, section or provision of this code.

**102.4 Referenced codes and standards.**

The codes and standards referenced in this code shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.

**102.4.1 Green Building Program.** Provisions of the Scottsdale Green Building Rating Checklist shall apply as long as the project is enrolled in the program.

### **102.5 Partial invalidity.**

In the event that any part or provision of this code is held to be illegal or void, this shall not have the effect of making void or illegal any of the other parts or provisions.

### **102.6 Existing structures.**

The legal occupancy of any structure existing on the date of adoption of this code shall be permitted to continue without change, except as is specifically covered in this code, the International Property Maintenance Code or the International Fire Code, or as is deemed necessary by the building official for the general safety and welfare of the occupants and the public.

#### **102.6.1 Additions, alterations or repairs.**

Additions, alterations or repairs to any structure shall conform to the requirements for a new structure without requiring the existing structure to comply with all of the requirements of this code, unless otherwise stated. Additions, alterations or repairs shall not cause an existing structure to become unsafe or adversely affect the performance of the building.

#### **102.6.2 Required Upgrades. (OLD SECTION 119.1)**

When additions, alterations, or repairs within a twelve month period exceed fifty (50) percent of the square footage of the structure, as recorded on the property description the day of the first submittal for any proposed remodel, the entire building shall be made to conform to the requirements for new buildings.

#### **102.6.3 Sprinklers (OLD SECTION 119.2)**

Sprinklers shall be installed as required by the International Fire Code as amended and adopted in the Scottsdale Revised Code, Chapter 36, Article I.

## **SECTION 103 - DEPARTMENT OF BUILDING SAFETY**

### **103.1 Creation of enforcement agency.**

The Department of Building Safety is hereby created and the official in charge thereof shall be known as the building official.

### **103.2 Appointment.**

The building official shall be appointed by the chief appointing authority of the jurisdiction.

### **103.3 Deputies.**

In accordance with the prescribed procedures of this jurisdiction and with the concurrence of the appointing authority, the building official shall have the authority to appoint a deputy building official, the related technical officers, inspectors, plan examiners and other employees. Such employees shall have powers as delegated by the building official. For the maintenance of existing properties, see the International Property Maintenance Code.

For the purpose of maintenance related inspections pertaining to Chapter 31, Section 3109, "Barriers for Swimming Pools, Spas, and Tubs", the code enforcement inspectors of the Planning & Development Services Department or Neighborhood Services Department shall have the authority to carry out the functions of code enforcement.

## **SECTION 104 - DUTIES AND POWERS OF BUILDING OFFICIAL**

### **104.1 General.**

The building official is hereby authorized and directed to enforce the provisions of this code. The building official shall have the authority to render interpretations of this code and to adopt policies and procedures in order to clarify the application of its provisions. Such interpretations, policies and procedures shall be in compliance with the intent and purpose of this code. Such policies and procedures shall not have the effect of waiving requirements specifically provided for in this code.

#### **104.2 Applications and permits.**

The building official shall receive applications, review construction documents and issue permits for the erection, and alteration, demolition and moving of buildings and structures, inspect the premises for which such permits have been issued and enforce compliance with the provisions of this code.

#### **104.3 Notices and orders.**

The building official shall issue all necessary notices or orders to ensure compliance with this code.

#### **104.4 Inspections.**

The building official shall make all of the required inspections, or the building official shall have the authority to accept reports of inspection by approved agencies or individuals. Reports of such inspections shall be in writing and be certified by a responsible officer of such approved agency or by the responsible individual. The building official is authorized to engage such expert opinion as deemed necessary to report upon unusual technical issues that arise, subject to the approval of the appointing authority.

#### **104.5 Identification.**

The building official shall carry proper identification when inspecting structures or premises in the performance of duties under this code.

#### **104.6 Right of entry.**

Where it is necessary to make an inspection to enforce the provisions of this code, or where the building official has reasonable cause to believe that there exists in a structure or upon a premises a condition which is contrary to or in violation of this code which makes the structure or premises unsafe, dangerous or hazardous, the building official is authorized to enter the structure or premises at reasonable times to inspect or to perform the duties imposed by this code, provided that if such structure or premises be occupied that credentials be presented to the occupant and entry requested. If such structure or premises is unoccupied, the building official shall first make a reasonable effort to locate the owner or other person having charge or control of the structure or premises and request entry. If entry is refused, the building official shall have recourse to the remedies provided by law to secure entry.

#### **104.7 Department records.**

The building official shall keep official records of applications received, permits and certificates issued, fees collected, reports of inspections, and notices and orders issued. Such records shall be retained in the official records for the period required for retention of public records.

#### **104.8 Liability.**

The building official, member of the board of appeals or employee charged with the enforcement of this code, while acting for the jurisdiction in good faith and without malice in the discharge of the duties required by this code or other pertinent law or ordinance, shall not thereby be rendered liable personally and is hereby relieved from personal liability for any damage accruing to persons or property as a result of any act or by reason of an act or omission in the discharge

of official duties. Any suit instituted against an officer or employee because of an act performed by that officer or employee in the lawful discharge of duties and under the provisions of this code shall be defended by legal representative of the jurisdiction until the final termination of the proceedings. The building official or any subordinate shall not be liable for cost in any action, suit or proceeding that is instituted in pursuance of the provisions of this code.

#### **104.9 Approved materials and equipment.**

Materials, equipment and devices approved by the building official shall be constructed and installed in accordance with such approval.

##### **104.9.1 Used materials and equipment.**

The use of used materials which meet the requirements of this code for new materials is permitted. Used equipment and devices shall not be reused unless approved by the building official.

#### **104.10 Modifications.**

Wherever there are practical difficulties involved in carrying out the provisions of this code, the building official shall have the authority to grant modifications for individual cases, upon application of the owner or owner's representative, provided the building official shall first find that special individual reason makes the strict letter of this code impractical and the modification is in compliance with the intent and purpose of this code and that such modification does not lessen health, accessibility, life and fire safety, or structural requirements. The details of action granting modifications shall be recorded and entered in the files of the department of building safety.

**104.10.1 Staff Variance Procedure.** Requests for a variance of code requirements shall be made in writing on a form provided by the building official. The applicant is responsible for providing all information, calculations, or other data necessary to substantiate each request for a variance. The building official shall approve, approve with stipulations, or deny such applications based upon the substantiating data submitted and the building official's determination that the variance does or does not result in substantial compliance with the intent of this code. In deciding each case, the building official may consider or require alternative methods or systems to be used in compensation for the particular code provision to be modified. The details of any action granting variances shall be recorded and entered in the files of the department.

**104.10.2 Appeals.** Any person dissatisfied with a formal order, decision, or determination made by the building official may request a hearing by the Building Advisory Board of Appeals. Appeals shall be made in writing on a form provided by the building official and shall be accompanied by a non-refundable fee as set forth in Chapter 31, Article II of the Scottsdale Revised Code.

#### **104.11 Alternative materials, design and methods of construction and equipment.**

The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been approved. An alternative material, design or method of construction shall be approved where the building official finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, fire resistance, durability and safety.

##### **104.11.1 Research reports.**

Supporting data, where necessary to assist in the approval of materials or assemblies not specifically provided for in this code, shall consist of valid research reports from approved sources.

#### **104.11.2 Tests.**

Whenever there is insufficient evidence of compliance with the provisions of this code, or evidence that a material or method does not conform to the requirements of this code, or in order to substantiate claims for alternative materials or methods, the building official shall have the authority to require tests as evidence of compliance to be made at no expense to the jurisdiction. Test methods shall be as specified in this code or by other recognized test standards. In the absence of recognized and accepted test methods, the building official shall approve the testing procedures. Tests shall be performed by an approved agency. Reports of such tests shall be retained by the building official for the period required for retention of public records.

### **SECTION 105 - PERMITS**

#### **105.1 Required.**

Any owner or authorized agent who intends to construct, enlarge, alter, repair, move, demolish, or change the occupancy of a building or structure, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by this code, or to cause any such work to be done, shall first make application to the building official and obtain the required permit.

A permit is also required when clearing or grubbing plant materials as specified in the Native Tree Preservation or Environmentally Sensitive Lands regulations of the city zoning ordinance; when changing the existing grade by importing or exporting materials as defined in section 101.2.1 of this code; or changing, rerouting or altering a natural drainage easement.

##### **105.1.1 Annual permit.**

In lieu of an individual permit for each alteration to an already approved electrical, gas, mechanical or plumbing installation, the building official is authorized to issue an annual permit upon application therefore to any person, firm or corporation regularly employing one or more qualified tradespersons' in the building, structure or on the premises owned or operated by the applicant for the permit.

##### **105.1.2 Annual permit records.**

The person to whom an annual permit is issued shall keep a detailed record of alterations made under such annual permit. The building official shall have access to such records at all times or such records shall be filed with the building official as designated.

#### **105.2 Work exempt from permit.**

Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. Permits shall not be required for the following:

##### **Building:**

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 200 square feet (18.6m<sup>2</sup>).
2. Fences not over 3 feet (0.9144 m) high. Fences and walls shall comply with requirements of the zoning ordinance, and all requirements of the Scottsdale Revised Code.

3. Oil derricks.
4. Retaining walls that are not over 3 foot (0.9144 m) in height measured from the bottom of the footing to the top of the wall which will not redirect the flow of runoff water and/or does not support a surcharge or impounding Class I, II or IIIA liquids.
5. Water tanks supported directly on grade if the capacity does not exceed 5,000 gallons (18,925 L) and the ratio of height to diameter or width does not exceed 2:1.
6. Sidewalks and driveways not more than 30 inches (762 mm) above adjacent grade, and not over any basement or story below and are not part of an accessible route.
7. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
8. Temporary motion picture, television and theater stage sets and scenery.
9. Prefabricated swimming pools accessory to a Group R-3 occupancy that are less than 24 inches (610 mm) deep, do not exceed 5,000 gallons (18 925 L) and are installed entirely above ground.
10. Temporary shade cloth structures which comply with zoning requirements not including service systems.
11. Swings and other playground equipment accessory to detached one- and two-family dwellings.
12. Window awnings supported by an exterior wall that do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support of Group R-3 and U Occupancies.
13. Nonfixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches (1753 mm) in height.

**Electrical:**

**Repairs and maintenance:** Minor repair work, including the replacement of lamps or the connection of approved portable electrical equipment to approved permanently installed receptacles.

**Radio and television transmitting stations:** The provisions of this code shall not apply to electrical equipment used for radio and television transmissions, but do apply to equipment and wiring for a power supply and the installations of towers and antennas.

**Temporary testing systems:** A permit shall not be required for the installation of any temporary system required for the testing or servicing of electrical equipment or apparatus.

See the Scottsdale Revised Code, Chapter 31, Article IV – Electric Code.

**Gas:**

The provisions of the International Fuel Gas Code shall apply to the installation of gas piping from the point of delivery, gas appliances and related accessories

1. Portable heating, cooking or clothes drying appliances.
2. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.
3. Portable-fuel-cell appliances that are not connected to a fixed piping system and are not interconnected to a power grid.

**Mechanical:**

1. Portable heating appliance.
2. Portable ventilation equipment.
3. Portable cooling unit.
4. Steam, hot or chilled water piping within any heating or cooling equipment regulated by this code.

5. Replacement of any part that does not alter its approval or make it unsafe.
6. Portable evaporative cooler.
7. Self-contained refrigeration system containing 10 pounds (5 kg) or less of refrigerant and actuated by motors of 1 horsepower (746 W) or less.
8. Portable-fuel-cell appliances that are not connected to a fixed piping system and are not interconnected to a power grid.

### **Plumbing:**

The provisions of the Plumbing Code as amended and adopted in the Scottsdale Revised Code, Chapter 31, Article VII shall apply.

1. The stopping of leaks in drains, water, soil, waste or vent pipe; provided, however, that if any concealed trap, drainpipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work and a permit shall be obtained and inspection made as provided in this code.
2. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, and the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures.

#### **105.2.1 Emergency repairs.**

Where equipment replacements and repairs must be performed in an emergency situation, the permit application shall be submitted within the next working business day to the building official.

#### **105.2.2 Repairs.**

Application or notice to the building official is not required for ordinary repairs to structures, replacement of lamps or the connection of approved portable electrical equipment to approved permanently installed receptacles. Such repairs shall not include the cutting away of any wall, partition or portion thereof, the removal or cutting of any structural beam or load-bearing support, or the removal or change of any required means of egress, or rearrangement of parts of a structure affecting the egress requirements; nor shall ordinary repairs include addition to, alteration of, replacement or relocation of any standpipe, water supply, sewer, drainage, drain leader, gas, soil, waste, vent or similar piping, electric wiring or mechanical or other work affecting public health or general safety.

#### **105.2.3 Public service agencies.**

A permit shall not be required for the installation, alteration or repair of generation, transmission, distribution or metering or other related equipment that is under the ownership and control of public service agencies by established right.

### **105.3 Application for permit.**

To obtain a permit, the applicant shall first file an application therefore in writing on a form furnished by the department of building safety for that purpose. Such application shall:

1. Identify and describe the work to be covered by the permit for which application is made.
2. Describe the land on which the proposed work is to be done by legal description, street address or similar description that will readily identify and definitely locate the proposed building or work.
3. Indicate the use and occupancy for which the proposed work is intended.
4. Be accompanied by construction documents and other information as required in

Section 106.

5. State the valuation of the proposed work.
6. Be signed by the applicant, or the applicant's authorized agent.
7. Give such other data and information as required by the building official.

**105.3.1 Action on application.**

The building official shall examine or cause to be examined applications for permits and amendments thereto within a reasonable time after filing. If the application or the construction documents do not conform to the requirements of pertinent laws, the building official shall reject such application in writing, stating the reasons therefore. If the building official is satisfied that the proposed work conforms to the requirements of this code and laws and ordinances applicable thereto, the building official shall issue a permit therefore as soon as practicable.

**105.3.2 Time limitation of application.**

An application for a permit for any proposed work shall be deemed to have been abandoned 180 days after the date of filing the last completed review for correction or the last review approval, unless such application has been pursued in good faith or a permit has been issued; except that the building official is authorized to grant one or more extensions of time for additional periods not exceeding 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

**105.4 Validity of permit.**

The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of this code or of any other ordinance of the jurisdiction. Permits presuming to give authority to violate or cancel the provisions of this code or other ordinances of the jurisdiction shall not be valid. The issuance of a permit based on construction documents and other data shall not prevent the building official from requiring the correction of errors in the construction documents and other data. The building official is also authorized to prevent occupancy or use of a structure where in violation of this code or of any other ordinances of this jurisdiction.

**105.5 Expiration.**

Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. The building official is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

**105.6 Suspension or revocation.**

The building official is authorized to suspend or revoke a permit issued under the provisions of this code wherever the permit is issued in error or on the basis of incorrect, inaccurate or incomplete information, or in violation of any ordinance or regulation or any of the provisions of this code.

**105.7 Placement of permit.**

The building permit or copy shall be kept on the site of the work until the completion of the project.

**SECTION 106 - CONSTRUCTION DOCUMENTS**

### **106.1 Submittal documents.**

Construction documents, statement of special inspections and other data shall be submitted in one or more sets with each permit application. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the building official is authorized to require additional construction documents to be prepared by a registered design professional.

**Exception:** The building official is authorized to waive the submission of construction documents and other data not required to be prepared by a registered design professional if it is found that the nature of the work applied for is such that review of construction documents is not necessary to obtain compliance with this code.

#### **106.1.1 Information on construction documents.**

Construction documents shall be dimensioned and drawn upon suitable material. Electronic media documents are permitted to be submitted when approved by the building official. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code and relevant laws, ordinances, rules and regulations, as determined by the building official.

Plans shall include building code data on the cover sheet or site plan, a declaration of building code data which is separate from planning, zoning and other non-building code data consisting of a listing of the following:

- The applicable city of Scottsdale construction codes for the project;
- The number of buildings proposed;
- The occupancy groups, occupancy separation fire ratings or non-separated uses;
- Construction types;
- Proposed floor area and allowable floor area calculations or unlimited area;
- Proposed height and number of stories and allowable height and number of stories;
- Fire sprinkler classifications;
- Status and uses;
- Occupant load(s) of rooms and number of exits per story;
- And any information on any variance approved for the building(s);
- Supporting data, calculations, dimensioned site plans indicating required yards, imaginary and actual property lines, etc. shall be included.

Plans shall include an exit plan which shows the common path of travel from the most remote point in rooms, proposed exit paths, travel dimensions and exit access travel distances, and accessible egress.

Plans shall indicate how required structural and fire- resistive integrity will be maintained where penetrations will be made for electrical, mechanical, plumbing and communication conduits, pipes and similar systems.

The architectural site plan or a separate site plan shall include accessible routes from accessible parking spaces and passenger loading zones to the various entrances and exits of the building(s), including slopes at grade changes along the accessible route (i.e. 1:50, 1:20, 1:12).

##### **106.1.1.1 Manufacturer's installation instructions.**

Manufacturer's installation instructions, as required by this code, shall be available on the job site at the time of inspection.

**106.1.1.1.1 Fire protection system shop drawings.**

Shop drawings for the fire protection system(s) shall be submitted to indicate conformance with this code and the construction documents and shall be approved prior to the start of system installation. Shop drawings shall contain all information as required by the referenced installation standards in Chapter 9.

**106.1.1.1.2 Green Building Program Information.** For projects enrolled in the city Green Building Program, the plans shall include applicable provisions of the Green Building Program Checklist.

**106.1.1.2 Information for construction in flood hazard areas.**

For buildings and structures located in whole or in part in flood hazard areas as established by Table R301.2(1), construction documents shall include:

1. Delineation of flood hazard areas, floodway boundaries and flood zones and the design flood elevation, as appropriate;
2. The elevation of the proposed lowest floor, including basement; in areas of shallow flooding (AO zones), the height of the proposed lowest floor, including basement, above the highest adjacent grade; and
3. The elevation of the bottom of the lowest horizontal structural member in coastal high hazard areas (V Zone); and
4. If design flood elevations are not included on the community's Flood Insurance Rate Map (FIRM), the building official and the applicant shall obtain and reasonably utilize any design flood elevation and floodway data available from other sources.

**106.1.2 Means of egress.**

The construction documents shall show in sufficient detail the location, construction, size and character of all portions of the means of egress in compliance with the provisions of this code. In other than occupancies in Groups R-2, R-3, and I-1, the construction documents shall designate the number of occupants to be accommodated on every floor, and in all rooms and spaces.

**106.1.3 Exterior wall envelope.**

Construction documents for all buildings shall describe the exterior wall envelope in sufficient detail to determine compliance with this code. The construction documents shall provide details of the exterior wall envelope as required, including flashing, intersections with dissimilar materials, corners, end details, control joints, intersections at roof, eaves or parapets, means of drainage, water-resistive membrane and details around openings.

The construction documents shall include manufacturer's installation instructions that provide supporting documentation that the proposed penetration and opening details described in the construction documents maintain the weather resistance of the exterior wall envelope. The supporting documentation shall fully describe the exterior wall system which was tested, where applicable, as well as the test procedure used.

**106.1.4 Standard Plans.** As used in this code, the term "plan" means a single family residential construction plan used two or more times in a given subdivision. A standard plan may include optional features that are ancillary to the base plan. Subsequent to approval, all plan modifications involving options or revisions shall be submitted for review. All changes shall be clearly identified by the use of clouded symbols, deltas, or other appropriate means.

The review fee will be charged hourly in accordance with Chapter 46 of Scottsdale Revised

Code. If changes involve extensive modifications or, in the building officials' judgment, are not adequately defined, the revised plans will be charged a full plan check fee.

#### **106.2 Site plan.**

The construction documents submitted with the application for permit shall be accompanied by a site plan showing to scale the size and location of new construction and existing structures on the site, distances from lot lines, the established street grades and the proposed finished grades and, as applicable, flood hazard areas, floodways, and design flood elevations; and it shall be drawn in accordance with an accurate boundary line survey. In the case of demolition, the site plan shall show construction to be demolished and the location and size of existing structures and construction that are to remain on the site or plot. The building official is authorized to waive or modify the requirement for a site plan when the application for permit is for alteration or repair or when otherwise warranted.

#### **106.3 Examination of documents.**

The building official shall examine or cause to be examined the accompanying construction documents and shall ascertain by such examinations whether the construction indicated and described is in accordance with the requirements of this code and other pertinent laws or ordinances.

##### **106.3.1 Approval of construction documents.**

When the building official issues a permit, the construction documents shall be approved, in writing or by stamp, as "Reviewed for Code Compliance." One set of construction documents so reviewed shall be retained by the building official. The other set shall be returned to the applicant, shall be kept at the site of work and shall be open to inspection by the building official or a duly authorized representative.

##### **106.3.2 Previous approvals.**

This code shall not require changes in the construction documents, construction or designated occupancy of a structure for which a lawful permit has been heretofore issued or otherwise lawfully authorized, and the construction of which has been pursued in good faith within 180 days after the effective date of this code and has not been abandoned.

##### **106.3.3 Phased approval.**

The building official is authorized to issue a permit for the construction of foundations or any other part of a building or structure before the construction documents for the whole building or structure have been submitted, provided that adequate information and detailed statements have been filed complying with pertinent requirements of this code. The holder of such permit for the foundation or other parts of a building or structure shall proceed at the holder's own risk with the building operation and without assurance that a permit for the entire structure will be granted.

##### **106.3.4 Design professional in responsible charge.**

###### **106.3.4.1 General.**

When it is required that documents be prepared by a registered design professional, the building official shall be authorized to require the owner to engage and designate on the building permit application a registered design professional who shall act as the registered design professional in responsible charge. If the circumstances require, the owner shall designate a substitute registered design professional in responsible charge who shall perform the duties required of the original registered design professional in

responsible charge. The building official shall be notified in writing by the owner if the registered design professional in responsible charge is changed or is unable to continue to perform the duties.

The registered design professional in responsible charge shall be responsible for reviewing and coordinating submittal documents prepared by others, including phased and deferred submittal items, for compatibility with the design of the building.

Where structural observation is required by Section 1709, the statement of special inspections shall name the individual or firms who are to perform structural observation and describe the stages of construction at which structural observation is to occur (see also duties specified in Section 1704).

#### **106.3.4.2 Deferred submittals.**

For the purposes of this section, deferred submittals are defined as those portions of the design that are not submitted at the time of the application and that are to be submitted to the building official within a specified period.

Deferral of any submittal items shall have the prior approval of the building official. The registered design professional in responsible charge shall list the deferred submittals on the construction documents for review by the building official.

Documents for deferred submittal items shall be submitted to the registered design professional in responsible charge who shall review them and forward them to the building official with a notation indicating that the deferred submittal documents have been reviewed and been found to be in general conformance to the design of the building. The deferred submittal items shall not be installed until the design and submittal documents have been approved by the building official.

#### **106.4 Amended construction documents.**

Work shall be installed in accordance with the approved construction documents, and any changes made during construction that are not in compliance with the approved construction documents shall be resubmitted for approval as an amended set of construction documents.

#### **106.5 Retention of construction documents.**

One set of approved construction documents shall be retained by the building official as required by state or local laws.

### **SECTION 107 - TEMPORARY STRUCTURES AND USES**

#### **107.1 General.**

The building official is authorized to issue a permit for temporary structures, other than tents and other membrane structures, and temporary uses. Such permits shall be limited as to time of service, but shall not be permitted for more than 180 days. The building official is authorized to grant extensions for demonstrated cause. Tents and other membrane structures shall comply with sections 3102 or 3103.

#### **107.2 Conformance.**

Temporary structures and uses shall conform to the structural strength, fire safety, means of egress, accessibility, light, ventilation and sanitary requirements of this code as necessary to ensure public health, safety and general welfare.

### **107.3 Temporary power.**

The building official is authorized to give permission to temporarily supply and use power in part of an electric installation before such installation has been fully completed and the final certificate of completion has been issued. The part covered by the temporary certificate shall comply with the requirements specified for temporary lighting, heat or power in the Scottsdale Revised Code, Chapter 31, Article IV.

### **107.4 Termination of approval.**

The building official is authorized to terminate such permit for a temporary structure or use and to order the temporary structure or use to be discontinued.

## **SECTION 108 - FEES**

### **108.1 Payment of fees.**

A permit shall not be valid until the fees prescribed by law have been paid, nor shall an amendment to a permit be released until the additional fee, if any, has been paid.

**108.1.1** The determination of value or valuation under any of the provisions of this code shall be made by the building official, determined by the use of the latest "Building Valuation Data" table as published by the International Code Council. The value to be used in computing the building permit and building plan review fees shall be the total value of all construction work for which the permit is issued, as well as all finish work, painting, roofing, electrical, plumbing, heating, air conditioning, elevators, fire- extinguishing systems and any other permanent equipment

**108.1.2** Valuation for tenant improvements projects involving interior alterations or repairs shall be determined by using 30% of the unit cost in the "Building Valuation Data" table or by the construction bid, notarized by the general contractor."

### **108.2 Schedule of permit fees.**

On buildings, structures, electrical, gas, mechanical, and plumbing systems or alterations requiring a permit, a fee for each permit shall be paid as required, in accordance with the schedule as established by the City of Scottsdale and specified in Scottsdale Revised Code, Chapter 46, Article VII.

### **108.3 Building permit valuations.**

The review fee will be charged in accordance with Chapter 46 of Scottsdale Revised Code.

### **108.4 Work commencing before permit issuance.**

Any person who commences any work on a building, structure, electrical, gas, mechanical or plumbing system before obtaining the necessary permits shall be subject to a fee established by the building official that shall be in addition to the required permit fees.

### **108.5 Related fees.**

The payment of the fee for the construction, alteration, removal or demolition for work done in connection to or concurrently with the work authorized by a building permit shall not relieve the applicant or holder of the permit from the payment of other fees that are prescribed by law.

### **108.6 Refunds.**

The building official is authorized to establish a refund policy.

## **SECTION 109 - INSPECTIONS**

### **109.1 General.**

Construction or work for which a permit is required shall be subject to inspection by the building official and such construction or work shall remain accessible and exposed for inspection purposes until approved. Approval as a result of an inspection shall not be construed to be an approval of a violation of the provisions of this code or of other ordinances of the jurisdiction. Inspections presuming to give authority to violate or cancel the provisions of this code or of other ordinances of the jurisdiction shall not be valid. It shall be the duty of the permit applicant to cause the work to remain accessible and exposed for inspection purposes. Neither the building official nor the jurisdiction shall be liable for expense entailed in the removal or replacement of any material required to allow inspection.

### **109.2 Preliminary inspection.**

Before issuing a permit, the building official is authorized to examine or cause to be examined buildings, structures and sites for which an application has been filed.

### **109.3 Required inspections.**

The building official, upon notification, shall make the inspections set forth in Sections 109.3.1 through 109.3.10. as required by the city of Scottsdale.

#### **109.3.1 Footing and foundation inspection.**

Footing and foundation inspections shall be made after excavations for footings are complete and any required reinforcing steel is in place. For concrete foundations, any required forms shall be in place prior to inspection. Materials for the foundation shall be on the job, except where concrete is ready mixed in accordance with ASTM C 94, the concrete need not be on the job.

#### **109.3.2 Concrete slab and under-floor inspection.**

Concrete slab and under-floor inspections shall be made after in-slab or under-floor reinforcing steel and building service equipment, conduit, piping accessories and other ancillary equipment items are in place, but before any concrete is placed or floor sheathing installed, including the subfloor.

#### **109.3.3 Lowest floor elevation.**

Elevation certification inspections shall be made at the appropriate time indicated in Development Services Department procedures.

#### **109.3.4 Frame inspection.**

Framing inspections shall be made after the roof deck or sheathing, all framing, fireblocking and bracing are in place and pipes, chimneys and vents to be concealed are complete and the rough electrical, plumbing, heating wires, pipes and ducts are approved.

#### **109.3.5 Lath and gypsum board inspection.**

Lath and gypsum board inspections shall be made after lathing and gypsum board, interior and exterior, is in place, but before any plastering is applied or gypsum board joints and fasteners are taped and finished.

#### **109.3.6 Fire-resistant penetrations.**

Protection of joints and penetrations in fire-resistance-rated assemblies shall not be concealed from view until inspected and approved.

#### **109.3.7 Energy efficiency inspections.**

Inspections shall be made to determine compliance with Chapter 13 and shall include, but not be limited to, inspections for: envelope insulation R and U values, fenestration U value, duct system R value, and HVAC and water-heating equipment efficiency.

**109.3.8 Other inspections.**

In addition to the inspections specified above, the building official is authorized to make or require other inspections of any construction work to ascertain compliance with the provisions of this code and other laws that are enforced by the Planning and Development Services Department.

**109.3.9 Special inspections.**

For special inspections, see Section 1704.

**109.3.10 Final inspection.**

The final inspection shall be made after all work required by the building permit is completed.

**109.4 Inspection agencies.**

The building official is authorized to accept reports of approved inspection agencies, provided such agencies satisfy the requirements as to qualifications and reliability.

**109.5 Inspection requests.**

It shall be the duty of the holder of the building permit or their duly authorized agent to notify the building official when work is ready for inspection. It shall be the duty of the permit holder to provide access to and means for inspections of such work that are required by this code.

**109.6 Approval required.**

Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the building official. The building official, upon notification, shall make the requested inspections and shall either indicate the portion of the construction that is satisfactory as completed, or notify the permit holder or his or her agent wherein the same fails to comply with this code. Any portions that do not comply shall be corrected and such portion shall not be covered or concealed until authorized by the building official.

**SECTION 110 - CERTIFICATE OF OCCUPANCY**

**110.1 Use and occupancy.**

No building or structure shall be used or occupied, and no change in the existing occupancy classification of a building or structure or portion thereof shall be made until the building official has issued a certificate of occupancy therefore as provided herein. Issuance of a certificate of occupancy shall not be construed as an approval of a violation of the provisions of this code or of other ordinances of the jurisdiction.

**110.2 Certificate issued.**

After the building official inspects the building or structure and finds no violations of the provisions of this code or other laws that are enforced by the department of building safety, the building official shall issue a certificate of occupancy that contains the following:

1. The building permit number.
2. The address of the structure.

3. The name and address of the owner at the time the structure receives the final inspection approval.
4. A description of that portion of the structure for which the certificate is issued.
5. A statement that the described portion of the structure has been inspected for compliance with the requirements of this code for the occupancy and division of occupancy and the use for which the proposed occupancy is classified.
6. The name of the building official.
7. The edition of the code under which the permit was issued.
8. The use and occupancy, in accordance with the provisions of Chapter 3.
9. The type of construction as defined in Chapter 6.
10. The design occupant load.
11. That an automatic sprinkler system is provided, if required.
12. Any special stipulations and conditions of the building permit.

### **110.3 Temporary certificate of occupancy (TCO).**

The building official is authorized to issue a temporary certificate of occupancy on a building or structure as outlined in Sections 110.3.1.

**110.3.1 Commercial Occupancy.** If the building official finds no substantial hazard will result from occupancy of any commercial building or portion thereof before the same is completed, a temporary certificate of occupancy may be issued for the use of a portion or portions of a building or structure prior to the completion of the entire building or structure provided the applicant agrees to the following stipulations:

1. When construction is complete, final inspection shall be requested and a certificate of occupancy issued.
2. The applicant will state in writing the length of time the temporary certificate of occupancy is required. The length of time shall not exceed 180 days. The temporary certificate of occupancy will expire at the end of the time period stated in writing, at which time the power will be de-energized. The building official may extend the temporary certificate of occupancy one time upon written request by the permittee or applicant, showing that circumstances beyond the control of the permittee or applicant, have prevented the completion of the project. Any extensions beyond the first will be taken on a case by case bases. The applicant must show the building official substantial proof the project was unable to be completed within the requested time frame.
3. It is the responsibility of the applicant to complete any required work prior to the expiration date of the temporary certificate of occupancy and request a final inspection.
4. The building official may request the utility company to de-energize power, if required work is not completed on or before the expiration date of the temporary certificate of occupancy. This includes occupying the structure after the temporary certificate of occupancy has expired. The city of Scottsdale reserves the right to lien any property in violations of the provisions of this contract.
5. Neither the City of Scottsdale nor the utility company will be held liable for any damages or delays, for de-energization of power.

#### **110.3.1.1 Single Family Residential.**

At the discretion of the building official, a temporary certificate of occupancy may be issued for a single family residential occupancy once the applicant provides justifiable cause. If approved, stipulations 1, 3, 4 & 5 in Section 110.3.1 shall apply. The temporary certificate of occupancy shall be valid for not more than 90 days.

### **110.3.2 Applicant**

The applicant shall be the owner or authorized agent. If the owner is not available to provide signature on the application for temporary certificate of occupancy, then the owner shall provide a letter on company letterhead or notarized letter of authorization stating the name of person authorized to act on owner's or company's behalf. Refunds will be paid only to the owner/company listed on the application. Should information on the application change during the course of construction, it is the responsibility of the applicant to inform the city of Scottsdale of such changes so that records may be kept current.

### **110.3.3 Deposit**

For each Temporary Certificate of Occupancy issued, there will be required a refundable cash deposit or irrevocable letter of credit acceptable to the Building Official, paid to the city of Scottsdale to assure compliance to code and ordinance requirements. The amount of the cash deposit will be the same as the sum total of all permits issued to the project which includes foundation, building, electrical, mechanical and plumbing permit fees as specified in Scottsdale Revised Code, Chapter 46, Article VII, or one thousand dollars (\$1,000.00), whichever is greater. Within 30 day of the issuance of the final certificate of occupancy, the deposit will be refunded less a \$200.00 administrative processing fee.

### **110.4 Revocation.**

The building official is authorized to, in writing, suspend or revoke a certificate of occupancy or completion issued under the provisions of this code wherever the certificate is issued in error, or on the basis of incorrect information supplied, or where it is determined that the building or structure or portion thereof is in violation of any ordinance or regulation or any of the provisions of this code.

*Section 111 SERVICE UTILITIES is amended by adding the following:*

## **SECTION 111 - SERVICE UTILITIES**

### **111.1 Connection of service utilities.**

No person shall make connections from a utility, source of energy, fuel or power to any building or system that is regulated by this code for which a permit is required, until released by the building official.

### **111.2 Temporary connection.**

The building official shall have the authority to authorize the temporary connection of the building or system to the utility source of energy, fuel or power.

#### **111.2.1 Temporary Electrical Clearance**

During construction, the Building ~~Inspection Manager~~ Official may allow temporary electrical power for the purpose of providing construction lighting or for providing power to test equipment provided that the applicant agrees to the following stipulations: that:

1. This clearance will not be construed as permission to occupy or use the premises in any other way than to complete construction and performance tests.
2. When construction is complete, final inspections shall be requested and a certificate of occupancy issued.
3. The applicant will state in writing the length of time the temporary power is required. The temporary electrical clearance will expire at the end of the time period stated in writing, at which time the power will be de-energized. The building inspection manager may extend the time upon written request by the permittee or applicant, showing that

circumstances beyond the control of the permittee or applicant have prevented the completion of the project.

4. It is the responsibility of the applicant to complete any required work prior to the expiration date of the temporary electrical clearance and call for required inspections.
5. The building inspection manager may request the utility company to de-energize power at any time, when in the opinion of the building inspection manager, the energized system is used for purposes other than stated above. This includes occupying the structure under temporary power without a valid certificate of occupancy. The city of Scottsdale reserves the right to lien any property in violations of the provisions of this contract.
6. Neither the City of Scottsdale nor the utility company will be held liable for any damages caused by the de-energization of power for the reasons stated.

#### **111.2.2 Applicant**

The applicant shall be the owner or authorized agent. If the owner is not available to provide signature on the application for temporary electrical clearance, then the owner shall provide a letter on company letterhead or notarized letter of authorization stating the name of person authorized to act on owner's or company's behalf. Refunds will be paid only to the owner/company listed on the application. Should information on the application change during the course of construction, it is the responsibility of the applicant to inform the city of Scottsdale of such changes so that records may be kept current.

#### **111.2.3 Deposit**

For each Temporary Electrical Clearance issued, there will be required a refundable cash deposit or irrevocable letter of credit acceptable to the Building Official, paid to the City of Scottsdale to assure the building is not occupied when power is being provided by a temporary electrical clearance. If the project is occupied, the deposit shall be forfeited and the power de-energized. The amount of the cash deposit will be the same as the cost of a combination building, electrical, mechanical, and plumbing permit fee, as specified in Scottsdale Revised Code. Chapter 46, Article VII, or one thousand dollars (\$1,000.00) whichever is greater. Within 30 day of the issuance of the final certificate of occupancy or the cancelation of the temporary power the deposit will be refunded less a \$200.00 administrative processing fee.

### **111.3 LOCK OUT/TAG OUT SAFETY PROGRAM**

Prior to the approval of temporary power in any form on a construction site, a letter containing the following information shall be on site at the time of the temporary power inspection. The letter shall be from the contractor or property owner and shall include:

1. Address and permit number
2. Description of equipment being energized
3. The name and phone number of a responsible party or parties.
4. What method of safety is to be implemented on the project to ensure the safety of personnel on the site.
5. Acknowledgment that the safety plan implemented will be maintained and monitored by the responsible parties.

The letter shall be distributed to all trade personnel and posted on site. The letter shall notify all trade personnel working on site of the electrical system becoming energized, and what method of safety is being employed. Trade personnel shall acknowledge the receipt of the letter by signing a copy of the letter, which will be kept in the construction office, or other convenient place on site.

An original signed and dated letter shall be retained by the City of Scottsdale until the project is accepted and under a Certificate of Occupancy.

#### **111.4 Authority to disconnect service utilities.**

The building official shall have the authority to authorize disconnection of utility service to the building, structure or system regulated by this code and the codes referenced in case of emergency where necessary to eliminate an immediate hazard to life or property. The building official shall notify the serving utility, and wherever possible the owner and occupant of the building, structure or service system of the decision to disconnect prior to taking such action. If not notified prior to disconnecting, the owner or occupant of the building, structure or service system shall be notified in writing, as soon as practical thereafter.

### **SECTION 112**

#### **BOARD OF APPEALS**

##### **112.1 General.**

In order to hear and decide appeals of orders, decisions or determinations made by the building official relative to the application and interpretation of this code, there shall be and is hereby created a board of appeals. The board of appeals shall be appointed by the governing body and shall hold office at its pleasure. The board shall adopt rules of procedure for conducting its business.

##### **112.2 Limitations on authority.**

An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply or an equally good or better form of construction is proposed. The board shall have no authority to waive requirements of this code.

The Building Advisory Board of Appeals shall have no authority relative to interpretation of the administrative provisions of this code nor shall the board be empowered to waive requirements of this code. Appeal cases appearing before the Building Advisory Board of Appeals shall be property specific and relate to projects having a building or fire permit, pending permit application or a written violation notice.

##### **112.3 Qualifications.**

The board of appeals shall consist of members who are qualified by experience and training to pass on matters pertaining to building construction and are not employees of the jurisdiction.

### **SECTION 113 - VIOLATIONS**

##### **113.1 Unlawful acts.**

It shall be unlawful for any person, firm or corporation to erect, construct, alter, extend, repair, move, remove, demolish or occupy any building, structure or equipment regulated by this code, or cause same to be done, in conflict with or in violation of any of the provisions of this code.

##### **113.2 Notice of violation.**

The building official is authorized to serve a notice of violation or order on the person responsible for the erection, construction, alteration, extension, repair, moving, removal, demolition or occupancy of a building or structure in violation of the provisions of this code, or in violation of a permit or certificate issued under the provisions of this code. Such order shall direct the discontinuance of the illegal action or condition and the abatement of the violation.

### **113.3 Prosecution of violation.**

If the notice of violation is not complied with promptly, the building official is authorized to request the legal counsel of the jurisdiction to institute the appropriate proceeding at law or in equity to restrain, correct or abate such violation, or to require the removal or termination of the unlawful occupancy of the building or structure in violation of the provisions of this code or of the order or direction made pursuant thereto.

### **113.4 Violation penalties.**

Any person who violates a provision of this code or fails to comply with any of the requirements thereof or who erects, constructs, alters or repairs a building or structure in violation of the approved construction documents or directive of the building official, or of a permit or certificate issued under the provisions of this code, shall be subject to penalties as prescribed by law.

## **SECTION 114 - STOP WORK ORDER**

### **114.1 Authority.**

Whenever the building official finds any work regulated by this code being performed in a manner either contrary to the provisions of this code or dangerous or unsafe, the building official is authorized to issue a stop work order.

### **114.2 Issuance.**

The stop work order shall be in writing and shall be given to the owner of the property involved, or to the owner's agent, or to the person doing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order, and the conditions under which the cited work will be permitted to resume.

### **114.3 Unlawful continuance.**

Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be subject to penalties as prescribed by law.

## **SECTION 115 - UNSAFE STRUCTURES AND EQUIPMENT**

### **115.1 Conditions.**

Structures or existing equipment that are or hereafter become unsafe, insanitary or deficient because of inadequate means of egress facilities, inadequate light and ventilation, or which constitute a fire hazard, or are otherwise dangerous to human life or the public welfare, or that involve illegal or improper occupancy or inadequate maintenance, shall be deemed an unsafe condition. Unsafe structures shall be taken down and removed or made safe, as the building official deems necessary and as provided for in this section. A vacant structure that is not secured against entry shall be deemed unsafe.

#### **115.1.1 Imminent danger.**

When, in the opinion of the code official, there is imminent danger of failure or collapse of a building that endangers life, or when any building or part of a building has fallen and life is endangered by the occupation of the building, or when there is actual or potential danger to the building occupants or those in the proximity of any structure because of explosives, explosive fumes or vapors, or the presence of toxic fumes, gases, or materials, or operation of defective or dangerous equipment, the code official is hereby authorized and empowered to order and require the occupants to vacate the premises forthwith. The code official shall cause to be posted at each entrance to such structure a notice reading as follows: "This

Structure Is Unsafe and Its Occupancy Has Been Prohibited by the Code Official.” It shall be unlawful for any person to enter such structure except for the purpose of securing the structure, making the required repairs, removing the hazardous condition, or of demolishing the same.

**115.1.2 Temporary safeguards.**

Notwithstanding other provisions of this code, whenever, in the opinion of the code official, there is imminent danger due to an unsafe condition, the code official shall order the necessary work to be done, including the boarding up of openings, to render such structure temporarily safe whether or not the legal procedure herein described has been instituted; and shall cause such other action to be taken as the code official deems necessary to meet such emergency.

**115.2 Record.**

The building official shall cause a report to be filed on an unsafe condition. The report shall state the occupancy of the structure and the nature of the unsafe condition.

**115.3 Notice.**

If an unsafe condition is found, the building official shall serve on the owner, agent or person in control of the structure, a written notice that describes the condition deemed unsafe and specifies the required repairs or improvements to be made to abate the unsafe condition, or that requires the unsafe structure to be demolished within a stipulated time. Such notice shall require the person thus notified to declare immediately to the building official acceptance or rejection of the terms of the order.

**115.4 Method of service.**

Such notice shall be deemed properly served if a copy thereof is (a) delivered to the owner personally; (b) sent by certified or registered mail addressed to the owner at the last known address with the return receipt requested; or (c) delivered in any other manner as prescribed by local law. If the certified or registered letter is returned showing that the letter was not delivered, a copy thereof shall be posted in a conspicuous place in or about the structure affected by such notice. Service of such notice in the foregoing manner upon the owner’s agent or upon the person responsible for the structure shall constitute service of notice upon the owner.

**115.5 Restoration.**

The structure or equipment determined to be unsafe by the building official is permitted to be restored to a safe condition. To the extent that repairs, alterations or additions are made or a change of occupancy occurs during the restoration of the structure, such repairs, alterations, additions or change of occupancy shall comply with the requirements of Section 105.2.2 and Chapter 34.

**SECTION 116 - CONSTRUCTION ACTIVITY**

**116.1 Working Hours.**

All building construction activity and associated work shall be restricted to the hours stated herein. Construction hours are distinguished between “summer hours” and “winter hours”. Construction activity shall include any work requiring the use of manually operated or power assisted tools or equipment and vehicles used to excavate, erect or deliver materials associated with construction.

#### **116.1.1 Summer hours.**

Summer hours shall begin April 1st and shall be in effect thru October 31st. No work shall commence prior to 5:00am nor continue after 7:00pm Monday thru Friday. Work on Saturday and Sunday shall be restricted to 7:00am thru 7:00pm. Sunday work shall only be conducted when the applicant demonstrates, in writing, justifiable cause for this work.

#### **116.1.2 Winter Hours**

The remaining portion of the year, not designated as summer hours, shall be winter hours. No work shall commence prior to 7:00am nor continue after 5:00pm Monday thru Friday. Work on Saturday and Sunday shall be restricted to 8:00am thru 5:00pm. Sunday work shall only be conducted when the applicant demonstrates, in writing, justifiable cause for this work.

The city of Scottsdale may establish other times as necessary based on the geographical location of the jobsite in relation to surrounding occupancies building and structures.

FPN: this ordinance is not intended to restrict the homeowner from working on Sunday. However, starting and stopping times do apply.

#### **116.1.3 Variances.**

The building official may upon written request grant a variance from these times if justifiable cause can be demonstrated that work must be done outside the prescribed time period (e.g. pouring concrete during "summer hours"). A variance shall not be granted based solely on convenience (e.g. traffic). A variance shall not be granted for any work that can be completed during daytime construction hours (e.g. demolition). The variance shall state the permit number, address, type of work, time period of the work and the duration of the variance.

The building official shall receive any request for variance at least seven (7) days before the work by the variance is done. Variances shall not be granted for more than 30 days at a time. If a longer timeframe is necessary, additional application shall be made for those occurrences.

The applicant requesting the variance shall be responsible for notifying the adjacent property owners of intended work and duration of time. Proof of this notification shall be presented to the building official prior to granting the variance from established work times.

#### **116.1.4 Stop Work**

Should it be determined that construction activity is being conducted outside the prescribed constructions hours stated in 116.1.1 and 116.1.2 without first receiving approval to do so through the variance process, any city enforcement officer whether a building official, public works inspector, code enforcement personal or police officer shall have the authority to order all work stopped, and the site vacated. The building official shall issue a "stop work" order at the first opportunity. No further work shall be conducted outside the prescribed times until proper variances is applied for, notifications have been put in place, and the variance approved. Work conducted in violation of Section 116 shall be subject to the penalties described in Scottsdale Revised Code, Chapter 31, Section 31-33 – Violations.

### **116.2 Dust, Dirt And Debris Control.**

It shall be the responsibility of the property owner, the owner's appointed representative or contractor to control dust, dirt or debris created by construction in accordance with this section.

Provisions shall be made to keep the public way and all adjoining properties free of construction dirt, dust and debris created by workers or construction related vehicles. Dust may be controlled by providing a water truck during any portion of construction when dust is created, to keep all dirt sufficiently wet in order to minimize airborne dust. Dirt that has fallen into the public way or onto any adjacent property shall be immediately swept clean. Construction debris such as trash or scrap building materials, being blown or deposited into the public way or onto any adjacent property shall be immediately removed. An area on the construction site shall be provided where debris such as trash or scrap building materials can be stored until such material can be safely removed from the site.

When a complaint is received by the city regarding dirt, dust or debris associated with a construction site, any city enforcement officer whether a building official, public works inspector, code enforcement personnel or police officer shall have the authority to notify the property owner, appointed representative or contractor of the violation and issue a compliance notice stating the time period that the dirt, dust or debris must be removed. Non-compliance will result in the suspension of all construction permits and a halt of all work at the construction site until the notice is complied with. The city shall not be held responsible for construction delays caused by non-compliance with these requirements."

## **SECTION 117 - REGISTERED FACILITIES**

### **117.1 Definition.**

For the purpose of this code, a registered facility is a firm, corporation, or political entity engaged in manufacturing, processing, or servicing which requires specialized facilities, utilities, and equipment to the extent that the facility maintains full-time personnel for the operation and maintenance of such facilities, utilities, and equipment and when such facility has complied with all the provisions of this section. A registered facility shall include industrial plants and health care facilities involved in the aforementioned activities. A registered facility shall not include retail operations.

### **117.2 Scope.**

Registered facilities are exempt from Section 105 permits, for work regulated by this code when such work does not increase the floor area, height, or change the occupancy use, and is performed on existing buildings, structures, and associated utilities. This exemption is limited to buildings owned and/or leased, and under the direct control of the holder of the registration. The facility registration is not transferable and shall not be construed to waive any other provisions of this code. All work performed at a registered facility by the registered design professional shall be done in compliance with the codes and ordinances currently adopted by the jurisdiction.

The valuation of all work shall include costs for labor and material for architectural, structural, electrical, plumbing, and mechanical work. Contractor's profit should not be omitted.

### **117.3 Qualifications.**

In addition to meeting the general definitions above, a registered facility shall have in its employ an engineer registered in the State of Arizona who shall be responsible for complying with the substantive provisions of this code.

**117.4 Application and Fee.**

Every applicant for facility registration shall file an application along with an application fee. The fee shall be Three Thousand dollars (\$3,000.). The building official shall review the application and notify the applicant accordingly. If the application is disapproved, the fee shall be refundable and the applicant may appeal such decision to the Building Advisory Board of Appeals.

**117.5 Registration Renewal.**

Registrations shall be renewed each year by payment of the appropriate fee on or before December 31. Any work performed after December 31 without renewal or permits and inspections shall be a violation of this code.

**117.6 Validity of Registration.**

Registration shall be valid only as long as the registered design professional remains in the employ of the applicant in an active and full time capacity. If the registered design professional should leave the employ of the applicant, the registration shall be suspended until another registered design professional is assigned the responsibility for work done under the registration. The registrant shall notify the building official immediately and call for inspection of any work in progress in accordance with Section 305. Before any new work commences while registration is invalid or suspended, permit and inspections shall be obtained pursuant to this chapter.

**117.7 Revocation of Registration.**

The building official may suspend or revoke a registration when the registrant fails to comply with any of the registration responsibilities or for violation of any provision of this code. When the building official deems that the registration shall be suspended or revoked, The registrant will be notified in writing by certified mail at least seven days prior to suspension or revocation. The registrant may appeal to the Building Advisory Board of Appeals within 30 days after notice of suspension or revocation.

**117.8 Work Report and Inspections.**

A report of all work done under the facility registration shall be prepared by the registered design professional and submitted monthly to the building official together with plans and valuation of alterations to facilities covered under the code. The report shall be signed and sealed by the registrant and submitted even during months of inactivity. The registered design professional shall make arrangements with the Building Official for quarterly inspections for work done under the registration. The Building Official has the authority to reject work or request corrections for any work found to be in violation of adopted codes or ordinances

**117.9 Plans.**

Plans submitted pursuant to this section may be reviewed and inspection of the work conducted by the building official or authorized representatives as set forth in this code, provided, however, that work may proceed without inspection pursuant to this section. The registrant may request a plan review or inspection of any work performed under this section without payment of additional plan review or inspection fees.

**Exception:** Work reports need not be submitted for the following:

1. Installation of machines, equipment, and processes related to production or testing;
2. Repair of electrical, plumbing, or mechanical systems;
3. Movable cases, counters, and partitions not over 5 feet 9 inches high.

**SECTION 118 - FIRE DAMAGED PROPERTY**

### **118.1 Assessment Required.**

When the structural components of buildings have been subjected to fire, it is the responsibility of the owner to acquire an assessment of structural damage from a registered engineer or architect. The city cannot provide an assessment of fire damaged property.

In every instance, a building permit shall be required when building components, including electrical, plumbing, and mechanical systems are replaced. Plans shall be submitted for all structural and non-structural building components that are refurbished.

Structural calculations, including engineered truss design by an approved manufacturer, shall be required for all structural replacements or modifications. All truss designs shall be keyed to the roof framing plan. The owner may be required to furnish calculations to substantiate the adequacy of charred or damaged structural framing. In computing the effective section modulus, the charred wood and 1/4 inch depth below the char shall be discounted. In addition, testing may be required to determine the adequacy and structural strength for damaged structural elements.

**The provisions of Section 102.6 shall apply to any fire damaged structure.**

**Section 119 ADDITIONS, ALTERATIONS AND REPAIRS is deleted and moved to Section 102.6**

*Section 119 is revised by adding the following:*

## **SECTION 119 OFFICE OF MANUFACTURED HOUSING (A.R.S. TITLE 41, Chap.16, Art.2)**

### **119.1 General.**

The Office of Manufactured Housing of the State Department of Building and Fire Safety maintains standards of quality and safety for manufactured homes, factory-built buildings, mobile homes, recreational vehicles, accessory structures and installation of manufactured and mobile homes, factory-built buildings and accessory structures

### **119.2 AGREEMENTS**

The Office of Manufactured Housing establishes agreements with local enforcement agencies to enforce the installation standards in their jurisdiction. The City of Scottsdale has no such agreement, therefore the state office enforces the installation standards which includes all utility connections.

### **119.3 MINIMUM STANDARDS.**

Local enforcement agencies must recognize the minimum standards of the State as equal to any nationally accepted or locally adopted building code standard. No local enforcement agency may require any unit which has been certified in accordance with State statutes to be subjected to :

1. Local inspections for determining compliance.
2. Fees for any services that are covered by State standards.

The aforementioned shall not preclude the enforcement of local codes and ordinances governing requirements for zoning, maximum areas, fire separations, site development and on-site utility terminals.

### **119.4 DOCUMENT SUBMITTAL**

The following documentation shall be submitted for the installation of a manufactured building:

1. Plans and all other documentation required to resolve all planning and zoning, and civil engineering issues.
2. Architectural plan indicating location of all buildings (new and existing) on the property, the location of utilities, septic systems, drives, etc., and the occupancy and use of the buildings.
3. Water meter calculation for the property.
4. Electrical calculation for each service on the property.
5. Fire sprinkler plans.

## **SECTION 120**

### **PROTECTION FOR SHAFTS, PITS AND EXCAVATIONS**

#### **120.1 Protection Required.**

Every person owning or having charge of land upon which is located any abandoned swimming pool or any abandoned mining shaft, test hole, well, pit, or similar excavation which exceeds six (6) feet in any lateral dimension and three (3) feet in depth shall cover, fence securely, or provide some equivalent protection for the hazard and keep it so protected.

#### **120.2 Enclosure required in Chapter 31.**

The enclosure required in Chapter 31 for swimming pools shall be considered to meet the requirements for minimum equivalent protection.

## **Chapter 3**

#### **308.2 Group I-1.**

This occupancy shall include buildings, structures or parts thereof housing more than 10 persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment that provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff. This group shall include, but not be limited to, the following:

- Residential board and care facilities
- Assisted living facilities
- Halfway houses
- Group homes
- Congregate care (living) facilities
- Social rehabilitation facilities
- Alcohol and drug centers
- Convalescent facilities

A facility such as the above with five or fewer persons may be classified as a Group R-3 or may comply with the International Residential Code in accordance with Section 101.2. A facility such as above, housing at least six and not more than 10 persons, may be classified as Group R-4.

#### **310.1 Residential Group R.**

**R-3** Residential occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4 or I, including:

Buildings that do not contain more than two dwelling units.

Adult facilities that provide accommodations for five or fewer persons of any age for less than 24 hours, excluding staff.

Child care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours, excluding staff.

Congregate living (care) facilities with five (5) or fewer persons, excluding g staff.

Adult and child care facilities that are within a single-family home are permitted to comply with the International Residential Code.

Group R-3 Care/assisted living occupancies in existing structures with one (1) to five (5) clients, excluding staff, shall meet the following requirements:

- a. Interconnected smoke detectors shall be installed in all livable areas in accordance with City of Scottsdale building code.
- b. Posted evacuation map and emergency procedures, per fire department.
- c. Portable fire extinguishers in accordance with City of Scottsdale Fire Code.

**R-4** Residential occupancies shall include buildings arranged for occupancy as residential care/assisted living facilities including more than five but not more than 10 occupants, excluding staff.

Adult and child care facilities that are within a single-family home are permitted to comply with the International Residential Code.

Group R-4 Care/Assisted Living occupancies in existing structures with six (6) to ten (10) clients, excluding staff, and in all new structures clients shall meet the following requirements:

- a. Interconnected smoke detectors shall be installed in all livable areas in accordance with City of Scottsdale building code.
- b. Posted evacuation map and emergency procedures, per fire department.
- c. Portable fire extinguishers in accordance with City of Scottsdale Fire Code.
- d. An automatic fire sprinkler system in accordance with City of Scottsdale Fire Code.

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code, or shall comply with the International Residential Code.

### **310.2 Definitions.**

RESIDENTIAL CARE/ASSISTED LIVING FACILITIES is amended to read:

**RESIDENTIAL CARE/ASSISTED LIVING FACILITIES.** A building or part thereof housing no more than ten (10) persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment which provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff. This classification shall include, but not be limited to, the following: residential board and care facilities, assisted living facilities, halfway houses, group homes, congregate care facilities, social rehabilitation facilities, alcohol and drug abuse centers and convalescent facilities.

## **Chapter 4**

### **406.1.4 Separation.**

Separations shall comply with the following:

1. In buildings not protected with an automatic fire sprinkler system, the private garage shall be separated from the dwelling unit and its attic area by means of a minimum ½-inch (12.7 mm) gypsum board applied to the garage side. Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than a 5/8-inch Type X gypsum board or equivalent. Where the separation is a floor-ceiling assembly, the structure supporting the separation shall also be protected by not less than 1/2-inch (12.7 mm) gypsum board or equivalent. In buildings protected with an automatic fire sprinkler system, including the private garage, the separation shall be permitted to be limited to a minimum 1/2-inch (12.7 mm) gypsum board applied to the garage side.

Door openings between a private garage and the dwelling unit shall be equipped with either solid wood doors or solid or honeycomb core steel doors not less than 1-3/8 inches (34.9 mm) thick, or doors in compliance with Section 715.4.3. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Doors shall be self-closing and self-latching.

In buildings protected with an automatic fire sprinkler system, including the private garage, the separation shall be permitted to be limited to a minimum 1/2-inch (12.7 mm) gypsum board applied to the garage side.

**Items 2 & 3 are unchanged.**

*Chapter 5 Section 505.2, Address Numbers is amended to read:*

See Scottsdale Revised Code, Chapter 36, Section 505.1 Address Numbers.

Chapter 5 Section 508.4, Group U Carports, is added to read:

### **508.4, Group U Carports.**

Carports for other than single family residential use which are open on all sides and constructed entirely of noncombustible materials except for an approved fascia, shall not exceed three thousand (3,000) square feet and shall be located no closer than three (3) feet to an adjacent property line nor closer than six (6) feet to the furthest projecting element of a building or structure. The edge of the carport roof shall be used to measure the distance to property lines, buildings, and projecting elements of buildings or structures."

**Chapter 6 – Note e of Table 601 is stricken**

**Chapter 7 - Section 704.11, Parapets, is amended by adding exception 7 as follows :**

7. Two-hour fire-resistive exterior wall constructed entirely of non-combustible materials in a building equipped with an approved automatic sprinkler system. The wall shall terminate at the underside of roof sheathing and the entire building shall be provided with noncombustible roof covering."

## **Chapter 9.**

*Section 901.6.1 Automatic Sprinkler systems is amended to read:*

#### **901.6.1 Automatic sprinkler systems.**

See Scottsdale Revised Code, Chapter 36, Section 903.4 Sprinkler system monitoring and alarms.

*Section 903.2 Where Required is amended to read:*

#### **[F] 903.2 Where required.**

See Scottsdale Revised Code, Chapter 36, Section 903.2 Where required.

##### **[F] 903.2.1 Group A.**

An automatic sprinkler system shall be provided throughout in accordance with NFPA 13 Installation of Sprinkler Systems and Fire Department Interpretation and Applications Manual.

##### **[F] 903.2.2 Group E.**

An automatic sprinkler system shall be installed throughout all Group E occupancies in accordance with NFPA 13 Installation of Sprinkler Systems and Fire Department Interpretation and Applications Manual.

##### **[F] 903.2.3 Group F-1.**

An automatic sprinkler system shall be installed throughout all Group F occupancies in accordance with NFPA 13 Installation of Sprinkler Systems and Fire Department Interpretation and Applications Manual.

##### **[F] 903.2.4 Group H.**

Automatic sprinkler systems shall be installed throughout all Group H occupancies in accordance with NFPA 13 Installation of Sprinkler Systems and Fire Department Interpretation and Applications Manual.

##### **[F] 903.2.5 Group I.**

An automatic sprinkler system shall be installed throughout all Group I occupancies in accordance with NFPA 13 Installation of Sprinkler Systems and Fire Department Interpretation and Applications Manual.

**Exception:** In jails, prisons and reformatories, the piping system may be dry, provided a manually operated valve is installed at a continuously monitored location. Opening of the valve will cause the piping system to be charged. Sprinkler heads in such systems shall be equipped with fusible elements or the system shall be designed as required for deluge systems in the Building Code.

##### **[F] 903.2.6 Group M.**

An automatic sprinkler system shall be installed throughout all Group M occupancies in accordance with NFPA 13 Installation of Sprinkler Systems and Fire Department Interpretation and Applications Manual.

##### **[F] 903.2.7 Group R.**

An automatic sprinkler system shall be installed throughout all Group R occupancies in accordance with NFPA 13, 13-R, or 13D Installation of Sprinkler Systems and Fire Department Interpretation and Applications Manual.

##### **903.2.7.1 All Group R-3 and U occupancies.**

An automatic sprinkler system shall be installed throughout all Group R-3 and U occupancies in accordance with NFPA 13 or 13-D Installation of Sprinkler Systems and Fire Department Interpretation and Applications Manual.

**[F] 903.2.8 Group S-1.**

An automatic sprinkler system shall be installed throughout all Group S-1 occupancies in accordance with NFPA 13 Installation of Sprinkler Systems and Fire Department Interpretation and Applications Manual.

**[F] 903.2.8.1 Repair garages.**

An automatic sprinkler system shall be provided throughout all repair garages in accordance with NFPA 13 Installation of Sprinkler Systems as modified by Fire Department Interpretation and Applications Manual.

**[F] 903.2.9 Group S-2.**

An automatic sprinkler system shall be provided throughout all Group S-2 occupancies in accordance with NFPA 13 Installation of Sprinkler Systems as modified by Fire Department Interpretation and Applications Manual.

**[F] 903.2.9.1 Commercial parking garages.**

An automatic sprinkler system shall be provided throughout all commercial parking garages in accordance with NFPA 13 Installation of Sprinkler Systems as modified by Fire Department Interpretation and Applications Manual.

**[F] 903.2.10 Windowless stories in all occupancies.**

An automatic sprinkler system shall be installed in accordance with NFPA 13 Installation of Sprinkler Systems as modified by Fire Department Interpretation and Applications Manual.

**[F] 903.2.10.1 Stories and basements without openings.**

An automatic sprinkler system shall be installed throughout every story or basement of all buildings in accordance with NFPA 13 Installation of Sprinkler Systems as modified by Fire Department Interpretation and Applications Manual.

**[F] 903.2.10.2 Rubbish and linen chutes.**

An automatic sprinkler system shall be installed at the top of rubbish and linen chutes and in their terminal rooms in accordance with NFPA 13 Installation of Sprinkler Systems as modified by Fire Department Interpretation and Applications Manual Chutes extending through three or more floors shall have additional sprinkler heads installed within such chutes at alternate floors. Chute sprinklers shall be accessible for servicing.

**[F] 903.2.10.3 Buildings 55 feet or more in height.**

An automatic sprinkler system shall be installed throughout buildings with a floor level having an occupant load of 30 or more that is located 55 feet (16764 mm) or more above the lowest level of fire department vehicle access in accordance with NFPA 13 Installation of Sprinkler Systems as modified by Fire Department Interpretation and Applications Manual.

**[F] 903.2.11 During construction.**

Automatic sprinkler systems required during construction, alteration and demolition operations shall be provide in accordance with NFPA 13 Installation of Sprinkler Systems as modified by Fire Department Interpretation and Applications Manual.

Section 903.2.14, Group B Occupancies, is added to read :

**903.2.14 Group B occupancies.**

An automatic sprinkler system shall be installed throughout all Group B occupancies in accordance with NFPA 13 Installation of Sprinkler Systems as modified by Fire Department Interpretation and Applications Manual.

Section 903.2.15, Additions, alterations and repairs, is added to read :

**903.2.15 Additions, alterations and repairs.**

When additions, alterations or repairs within a twelve month period exceed fifty (50) percent of the value of an existing building or structure, such building or structure shall be made to conform to the requirements for new buildings or structures.

**Exception:** Such building or structure shall be equipped with an approved fire sprinkler system when work exceeds ten (10) percent of the value of the existing building of assembly use or twenty-five (25) percent of the value of an existing building or structure of other occupancies."

*Section 903.3 Installation requirements is amended to read:*

**903.3 Installation requirements.** Automatic sprinkler systems shall be designed and installed in accordance with NFPA 13, 13-R, 13-D 13 installation of sprinkler systems as modified by the fire department interpretation and applications manual.

*903.3.6 is amended to read:*

**[F] 903.3.6 Hose threads.**

See Scottsdale Revised Code, Chapter 36, Section 903.3.6 Hose Threads

*903.3.7 is added to read:*

**903.3.7 Fire department connections.**

See Scottsdale Revised Code, Chapter 36, Section 903.3.7 Fire Department Connections

*Section 903.4 Sprinkler system monitoring and alarms is amended to read:*

**[F] 903.4 Sprinkler system monitoring and alarms.**

See Scottsdale Revised Code, Chapter 36, Section 903.4

*Section 903.4.2 Alarms is amended to read:*

**[F] 903.4.2 Alarms.**

See Scottsdale Revised Code, Chapter 36, Section 903.4.2 Alarms

Section [F] 905.2 Installation standard is deleted

*Section 905.3.4 Stages is amended to read:*

**[F] 905.3.4 Stages.**

See Scottsdale Revised Code, Chapter 36, Section 905.3.4 Stages

*Section 905.3.4.1 Hose and Cabinet is amended to read:*

**905.3.4.1 Hose and cabinet.**

See Scottsdale Revised Code, Chapter 36, Section 905.3.4.1 Hose and cabinet

*Add Section 905.12 Hose Connections and amend to read:*

**905.12. Hose connections for access challenges.**

See Scottsdale Revised Code, Chapter 36, Section 905.12 Hose connections for access challenges

*Section 907.2 is amended to read:*

**[F]907.2 Where required.**

See Scottsdale Revised Code, Chapter 36, Section 907.2 Where required

[F] 907.2.10 Single- and multiple-station smoke alarms is amended by adding the following:

**907.2.10.1.4 Apartments, Condominiums and Conversions.**

All apartments and condominiums constructed without a sprinkler system and all conversions made in buildings without a sprinkler system shall install smoke alarms in compliance with Section 907.2.10 of the most current adopted building code.

**Exception:** If construction is not being done or if construction does not include the removal of the ceiling membrane – exposing the building framing – the smoke alarms may be battery operated only, provided the battery is a long life lithium battery or equal.

**ALL STRUCTURES SHALL BE IN COMPLIANCE ON OR BEFORE JANUARY 1, 2009.**

**[F] 907.6 Activation.**

See Scottsdale Revised Code, Chapter 36, Section 907.7 Activation

*SECTION 912 FIRE DEPARTMENT CONNECTIONS is amending by the following*

912.1 Installation.

See Scottsdale Revised Code, Chapter 36, Section 912.1 Installation

912.2 Location.

See Scottsdale Revised Code, Chapter 36, Section 912.2 Location

912.2.1 Visible location.

See Scottsdale Revised Code, Chapter 36, Section 912.2.1 Visible location

912.2.2 Existing buildings.

See Scottsdale Revised Code, Chapter 36, Section 912.2.2 Existing buildings

912.2.3 Remote Fire Department Connections.

See Scottsdale Revised Code, Chapter 36, Section 912.2.3 Remote Fire Department Connections

912.2.4 Wall mounted Fire Department Connections.

See Scottsdale Revised Code, Chapter 36, Section 912.2.4 Wall mounted Fire Department Connections

## Chapter 10

### 1004.3 Posting of occupant load.

Every room or space that is an assembly occupancy shall have the occupant load of the room or space posted in a conspicuous place, near the main exit or exit access doorway from the room or space. Posted signs shall be of an approved legible permanent design and shall be maintained by the owner or authorized agent. The sign shall be printed in letters at least three-quarter (3/4) inch high on a contrasting background and read: "Maximum Occupant Load \_\_\_\_\_ People". The number of people occupying the room shall not exceed the maximum occupant load as posted on the sign.

*1014.4.3.3 is amended to read:*

### 1014.4.3.3 Table and seating aisle accessway length.

The length of travel along the aisle accessway shall not exceed 30 feet (9144 mm) from any seat to the path of egress travel.

*Amend Table 1015.1 as follows:*

**TABLE 1015.1  
SPACES WITH ONE MEANS OF EGRESS**

OCCUPANCY	MAXIMUM LOAD	OCCUPANT
A, B, Ea, F, M, U	49	
H-1, H-2, H-3	3	
H-4, H-5, I-1, I-3, I-4	10	
R	20	
S	29	

- a. Day care maximum occupant load is 10.

## Chapter 11

### 1101.2 Design.

Buildings and facilities shall be designed and constructed to be accessible in accordance with this code and ICC A117.1, and Arizona Revised Statutes Section 41-1492.03 (the Arizona Americans with Disabilities Act), R 10-3-403 and R 10-3-404, which includes 28 CFR Part 35, and 28 CFR 36, and the Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG).

Section 1107 is amended to read as shown:

### 1107.7 General exceptions.

Where specifically permitted by Section 1107.5 or 1107.6, the required number of Type A and Type B units is permitted to be reduced in accordance with Sections 1107.7.1 through 1107.7.6.

### **1107.7.6 Condominium Projects.**

Type A units are required to be designed, but not required to be constructed, unless requested. When no Type A units are requested, units shall be constructed as a Type B unit.

*Section 1109.5 Drinking fountains is amended by adding the following:*

### **1109.5.3 Alternates**

In lieu of the required drinking fountain, or in combination with existing drinking fountains, one or more of the following alternatives may be chosen to meet the requirements for ADA accessible drinking fountains:

1. a bottled water dispenser (ex: Crystal Water), with flat bottom cups and straws available, and accessible to all occupants.
2. a mini refrigerator with individually bottled water, with flat bottom cups and straws available, and accessible to all occupants.
3. a refrigerator with a water dispenser in the door that is not more than 34" above the finished floor, with flat bottom cups and straws are available, and accessible to all occupants.
4. a break room sink, set in a counter not more than 34" above the finished floor and as close as possible to the center of the space (between walls and not set in a corner), with a 30" X 48" wheelchair space provided directly in front of the sink, with flat bottom cups and straws available, and accessible to all occupants.

Any alternate shall be on an accessible path of travel, be fully accessible to all occupants of the space, and available for their use without special knowledge or assistance, unless assistance is requested by the individual.

*FPN: A note on the plans will be required to show compliance with the alternative chosen*

## **Chapter 12**

Section 1204.1 is amended as follows:

### **1204.1 Equipment and systems.**

Interior spaces intended for human occupancy shall meet the requirements of section 1204.1.1 – Heating and 1204.1.2 – Cooling.

#### **1204.1.1 Heating**

Interior spaces intended for human occupancy shall be provided with active or passive heating facilities capable of maintaining a room temperature of 68°F (20°C) in all habitable rooms, bathrooms and toilet rooms based on the winter outdoor design temperature of 34°F (01°C) for Phoenix locality, indicated in Appendix D of the International Plumbing Code. Cooking appliances shall not be used to provide space heating to meet the requirements of this section.

#### **Exception:**

Interior spaces where the primary purpose is not associated with human comfort.

#### **1204.1.2 Cooling**

Interior spaces intended for human occupancy shall be provided with cooling facilities capable of maintaining a room temperature of 85°F (29°C) in all habitable rooms, bathrooms and toilet rooms based on the summer outdoor design temperature of 107°F (42°C) for Phoenix locality, indicated in Appendix D of the International Plumbing Code.

#### **Exception:**

Interior spaces where the primary purpose is not associated with human comfort.

#### **1204.1.3 Maintenance**

All heating and cooling equipment shall be maintained in good working order so the requirements of Section 1204 for heating and cooling are met.

#### **1209.2 Attic spaces.**

An opening not less than 20 inches by 30 inches (559 mm by 762 mm) shall be provided to any attic area having a clear height of over 30 inches (762 mm). A 30-inch (762 mm) minimum clear headroom in the attic space shall be provided at or above the access opening. The opening shall be located in a corridor, hallway or other readily accessible location.

### **Chapter 13**

#### **1301.1.1 Criteria.**

Buildings shall be designed and constructed in accordance with the International Energy Conservation Code with the following modification to Section 502.1.1 of the IECC

##### **502.1.1 Insulation and fenestration criteria.**

Building thermal envelope compliance (sections 502.2 and 502.3) shall be demonstrated by passing COMcheck energy compliance software with a score at least 15% above the IECC. Buildings with a vertical fenestration area or skylight area that exceeds that allowed in Table 502.3 shall comply with either the Total Building Performance provisions (section 506) of the IECC or the Building Envelope Trade-Off Option (section 5.4) of ASHRAE/IESNA 90.1"

### **Chapter 15**

Section 1502.1, Definition of the following term is added to read:

**FELT.** A matted organic or inorganic fibers, saturated or coated with bituminous compound meeting ASTM standards for felt roofing materials.

#### **[P] 1503.4 Roof drainage.**

Design and installation of roof drainage systems shall comply with Section 1503.4 and the Plumbing Code as amended and adopted in the Scottsdale Revised Code, Chapter 31, Article VII.

##### **1503.4.1 Gutters.**

Gutters and leaders placed on the outside of buildings, other than Group R-3 as applicable in Section 101.2, private garages and buildings of Type V construction, shall be of noncombustible material or a minimum of Schedule 40 plastic pipe.

##### **1503.4.2 Where required.**

All roofs, paved areas, yards, courts and courtyards shall drain into a separate storm sewer system, or a combined sewer system, or to an approved place of disposal.

##### **1503.4.3 Roof design.**

Roofs shall be designed for the maximum possible depth of water that will pond thereon as determined by the relative levels of roof deck and overflow weirs, scuppers, edges or serviceable drains in combination with the deflected structural elements. In determining the maximum possible depth of water, all primary roof drainage means shall be assumed to be blocked.

**1503.4.4 Overflow drainage required.**

Overflow (emergency) roof drains or scuppers shall be provided where the roof perimeter construction extends above the roof in such a manner that water will be entrapped if the primary drains allow buildup for any reason.

**1503.4.4.1 Separate systems required.**

Overflow roof drain systems shall have the end point of discharge separate from the primary system. Discharge shall be above grade, in a location, which would normally be observed by the building occupants or maintenance personnel.

**1503.4.4.2 Overflow drains and scuppers.**

Where roof drains are required, overflow drains having the same size as the roof drains shall be installed with the inlet flow line located 2 inches (51 mm) above the low point of the roof, or overflow scuppers having three times the size of the roof drains may be installed in the adjacent parapet walls. Scuppers shall be sized to prevent the depth of ponding water from exceeding that for which the roof was designed as determined by the plumbing code. Scuppers shall not have an opening dimension of less than 4 inches (102 mm). The flow through the primary system shall not be considered when sizing the secondary roof drain system.

*1507.3.4 Clay tile is amended by adding the following:*

**1507.3.4 Clay tile.**

Clay roof tile shall comply with ASTM C 1167.

**1507.3.4.1 Weather Proof Material**

Clay tile that has not been evaluated and a National Evaluation Report (NER) issued, shall not be considered to be an effective weather-proof material, as required by Chapter 15 of the International Building Code (IBC).

Non-approved clay tile shall be placed over an approved roof covering as prescribed in IBC Chapter 15.

**1507.3.4.2 Attachment**

Attachment of non-approved clay tile shall conform to IBC Table 1507.3.7, or methods approved by NER Evaluation Service. Nails or other fastener heads shall be covered by mastic.

*1507.3.5 Concrete tile is amended by adding the following:*

**1507.3.5 Concrete tile.**

Concrete roof tile shall comply with ASTM C 1492.

**1507.3.5.1 Weather Proof Material**

Concrete tile that has not been evaluated and a National Evaluation Report (NER) issued, shall not be considered to be an effective weather-proof material, as required by Chapter 15 of the International Building Code (IBC).

Non-approved concrete tile shall be placed over an approved roof covering as prescribed in IBC Chapter 15.

**1507.3.5.2 Attachment**

Attachment of non-approved concrete tile shall conform to IBC Table 1507.3.7, r methods approved by NER Evaluation Service. Nails or other fastener heads shall be covered by mastic.

## **Chapter 16**

Section 1607.11.2.1, Flat, pitched and curved roofs, add footnote a. to read:

$R2 = 1.2 - 0.05 F$  for  $4 < F < 12$  (Equation 16-29) a.

a For light frame construction 3 stories or less with a slope equal to 4/12 or greater, R2 may be used as 0.8.

*Section 1612.1 – General is amended by adding the following.*

### **Section 1612.1 - General**

In the case of any conflict between Section 1612 and the Scottsdale Revised Code, Chapter 37 (and the policies and standards adopted to administer Chapter 37), the provisions providing stricter standards, as determined by the Building Official, shall control.

Section 1612.3, 1612.4 & 1612.5 are deleted.

## **Chapter 17**

Section 1704.5, Masonry construction, is amended by adding the following exceptions:

3. Masonry fences six feet or less in height above grade.
4. Masonry retaining walls three feet or less in height from bottom of footing to top of wall unless supporting a surcharge or impounding flammable liquids.
5. Masonry walls 10 feet or less in height and fireplaces of one and two family dwellings when designed at  $\frac{1}{2}$  stress.

Section 1704.5.2, Engineered masonry in nonessential facilities, is amended by adding the following exception:

**Exception:** When quality assurance provisions do not include requirements for special inspection as prescribed in Section 1704.5, the allowable stresses for masonry in Section 2107 shall be reduced by one half. The following limitations shall apply to this exception.

1. The maximum unsupported height (or length) to width (nominal) ratio of a building wall is limited to 20.
2. The maximum soil retaining for a retaining wall is 4'-0" from the top of footing for an 8 inch wall or 6'-0" for a 12 inch wall.
3. The maximum height to width ratio of 10 for a cantilevered fence or combination fence and retaining wall as determined from the top of footing to the top of wall.

Section 1704.13, Special cases for Special Inspections, is amended by adding:

4. Wood panelized roof construction.
5. Complex Electrical Installations as determined by the Electrical Plans Examiner such as:
  - a. Lightning Protection Systems
  - b. Extensive ground grid installations
6. Medical Gas Installations in health care facilities as required by Uniform Plumbing Code, Appendix F. (Credentials of third party inspection agency shall be approved by the Building Official)"
7. Light gauge steel buildings
8. ICF wall systems

## **Chapter 18**

Table 1805.4.2, Footings supporting walls of light-frame construction, is amended by adding footnote "h":

**h.** Isolated columns carrying loads in excess of 750 lbs shall be supported on minimum 4 square feet of footing, with minimum width of 24 inches. Maximum bearing pressure from service loads shall not exceed 1500 psf unless recommended by the soils report.

## **Chapter 21**

### **2107.5 ACI530/ASCE5/TMS402, Section 2.1.10.7.1.1, lap splices.**

Modify Section 2.1.10.7.1.1 as follows:

**2.1.10.7.1.1** The minimum length of lap splices for reinforcing bars in tension or compression,  $l_d$ , shall be as required by ACI530/ASCE5/TMS402, but shall not be less than 15 inches (380 mm).

In regions of moment where the design tensile stresses in the reinforcement are greater than 80 percent of the allowable steel tension stress,  $F_s$ , the lap length of splices shall be increased not less than 50 percent of the minimum required length. Other equivalent means of stress transfer to accomplish the same 50 percent increase shall be permitted.

Where epoxy coated bars are used, lap length shall be increased by 50 percent.

Chapter 21 is amended by adding the following:

### **2114 CLEAN BURNING FIREPLACES.**

The purpose of this Standard is to regulate fireplaces, woodstoves, or other solid-fuel burning devices to reduce the amount of air pollution caused by particulate matter and carbon monoxide.

The effective date of the regulations and prohibitions set forth in this Standard shall take effect on December 31, 1998.

**Definitions:** For purposes of this Standard, the following words and terms shall be defined as follows:

**FIREPLACE** means a built in place masonry hearth and fire chamber or a factory-built appliance, designed to burn solid fuel or to accommodate gas or electric log insert or similar device, and which is intended for occasional recreational or aesthetic use, not for cooking, heating, or industrial processes.

**SOLID FUEL** includes but is not limited to wood, coal, or other nongaseous or non-liquid fuels, including those fuels defined by the Maricopa County Air Pollution Control Officer as "inappropriate fuel" to burn in residential wood-burning devices.

**WOODSTOVE** means a solid-fuel burning heating appliance including a pellet stove, which is either freestanding or designed to be inserted into a fireplace.

**Installation Restrictions:**

a) On or after the effective date, no person, firm or corporation shall construct or install a fireplace or a woodstove, and the Building Official shall not approve or issue a permit to construct or install a fireplace or a woodstove, unless the fireplace or woodstove complied with one of the following:

1. A fireplace which has a permanently installed gas or electric log insert.
2. A fireplace, woodstove, or other solid-fuel burning appliance which has been certified by the United States Environmental Protection Agency as conforming to 40 Code of Federal Regulations Part 60, Subpart AAA as in effect on July 1, 1990.
3. A fireplace, woodstove or other solid-fuel burning appliance which has been tested and listed by a nationally recognized testing agency to meet performance standards equivalent to those adopted by 40 Code of Federal Regulations part 60, Subpart AAA as in effect on July 1, 1990.
4. A fireplace, woodstove or other solid-fuel burning appliance which has been determined by the Maricopa County Air Pollution Control Officer to meet performance standards equivalent to those adopted by 40 Code of Federal Regulations part 60, Subpart AAA as in effect on July 1, 1990.
5. A fireplace which has a permanently installed woodstove insert which complies with subparagraphs 2, 3, or 4 above.

b) The following installations are not regulated by this Standard and are not prohibited by this Standard:

1. Furnace, boilers, incinerators, kilns, and other similar space heating or industrial process equipment.
2. Cook-stoves, barbecue grills, and similar appliances designed primarily for cooking.
3. Fire pits, barbecue grills, and other outdoor fireplaces.

**Fireplace or Woodstove Alterations Prohibited:**

a) On or after the effective date, no person, firm or corporation shall alter or remove a gas or electric log insert or a woodstove insert from a fireplace for purposes of converting the fireplace to directly burn wood or other solid fuel.

b) On or after the effective date, no person, firm or corporation shall alter a fireplace, woodstove or other solid fuel burning appliance in any manner that would void its certification or operational compliance with the provisions of this Standard.

**Permits Required:**

In addition to the provisions and restrictions of this Standard, construction, installation or alteration of all fireplaces, woodstoves and other gas, electric or solid-fuel burning appliances and equipment shall be done in compliance with provisions of the Construction Code and shall be subject to the permits and inspections required by the Construction Code.

## **Chapter 23**

### **2308.9.2 Framing details.**

Studs shall be placed with their wide dimension perpendicular to the wall. Not less than three studs shall be installed at each corner of an exterior wall.

**Exception:** At corners, two studs are permitted, provided wood spacers or backup cleats of 3/8-inch-thick (9.5 mm) wood structural panel, 3/8-inch (9.5 mm) Type M "Exterior Glue" particleboard, 1-inch-thick (25 mm) lumber or other approved devices that will serve as an adequate backing for the attachment of facing materials are used. Where fire-resistance ratings or shear values are involved, wood spacers, backup cleats or other devices shall not be used unless specifically approved for such use.

Bearing frame walls shall have a framing anchor/tie down connector at every other stud to top and bottom plates, unless wall is sheathed with structural paneling which extends from bottom to top plates with nailing per Table 2304.9.1. Framing anchors, mechanical fasteners and/or structural sheathing shall be installed to provide continuous ties from the roof to the foundation system.

*Section 2403.2 Glass supports is amended by adding the following:*

### **2403.2 Glass supports.**

Where one or more sides of any pane of glass are not firmly supported, or are subjected to unusual load conditions, detailed construction documents, detailed shop drawings and analysis or test data assuring safe performance for the specific installation shall be prepared by a registered design professional.

The following thicknesses of fully tempered glass may be used in butt-glazed, vertical fixed glass windows, when supported by two edges, without further justification:

- 60 inch (1524 mm) span or less - 1/4 inch thick
- 80 inch (2032 mm) span or less - 5/16 inch thick
- 96 inch (2438 mm) span or less - 3/8 inch thick

Heat strengthened glass is not allowed for butt-glazed installations.

*Section 2512.1.2 Weep screeds is amended by adding the following exception:*

**2512.1.2 Weep screeds.**

A minimum 0.019-inch (0.48 mm) (No. 26 galvanized sheet gage), corrosion-resistant weep screed with a minimum vertical attachment flange of 3½ inches (89 mm) shall be provided at or below the foundation plate line on exterior stud walls in accordance with ASTM C 926. The weep screed shall be placed a minimum of 4 inches (102 mm) above the earth or 2 inches (51 mm) above paved areas and be of a type that will allow trapped water to drain to the exterior of the building. The water-resistive barrier shall lap the attachment flange. The exterior lath shall cover and terminate on the attachment flange of the weep screed.

Exception: Paved areas under covered patios or other overhangs that are thirty-six (36) inches (914 mm) or more horizontally from the edge of the roof need not maintain a 2 inch (51 mm) clearance. The clearance may be only as large as necessary for the weep screed to perform as intended.

**Chapter 29**

**[P] 2901.1 Scope.**

The provisions of this chapter and the Plumbing Code as amended and adopted in the Scottsdale Revised Code, Chapter 31, Article VII shall govern the erection, installation, alteration, repairs, relocation, replacement, addition to, use or maintenance of plumbing equipment and systems. Plumbing systems and equipment shall be constructed, installed and maintained in accordance with the Plumbing Code as amended and adopted in the Scottsdale Revised Code, Chapter 31, Article VII. Private sewage disposal systems shall conform to the Plumbing Code as amended and adopted in the Scottsdale Revised Code, Chapter 31, Article VII and the requirements of the Maricopa County Health Department.

Section 2902 is amended by adding the following:

**IBC 2902.7 DRINKING FOUNTAINS**

**2902.7.1 Approval.**

Drinking fountains shall conform to ASME A112.19.1M ASME A112.19.2M or ASME A112.19.19M and water coolers shall conform to ARI 1010. Drinking fountains and water coolers shall conform to NSF61, Section 9. Where water is served in restaurants, drinking fountains shall not be required. In other occupancies, where drinking fountains are required, bottled water dispensers, water coolers or break room sinks (when accessible [and available] to the public) shall be permitted to be substituted. See section 1109.5 for alternates to accessible drinking fountains.

**Chapter 31**

*Section 3102 is amended to read:*

**SECTION 3102**

**TENTS AND OTHER MEMBRANE STRUCTURES ERECTED FOR 180 DAYS OR LONGER**

**3102.1 General.**

The provisions of this section shall apply to air-supported, air-inflated, membrane-covered cable and membrane-covered frame structures, collectively known as membrane structures, erected for a period of 180 days or longer. Tents and other membrane structures erected for a period of 180 days or longer shall comply with applicable section of this code and the International Fire

Code. Tents and other membrane structures erected for less than 180 days shall comply with section 3103. Membrane structures covering water storage facilities, water clarifiers, water treatment plants, sewage treatment plants, greenhouses and similar facilities not used for human occupancy, are required to meet only the requirements of Sections 3102.3.1 and 3102.7.

*Section 3103 is amended to read:*

## **SECTION 3103 - TEMPORARY STRUCTURES, TENTS AND OTHER MEMBRANE STRUCTURES ERECTED FOR LESS THAN 180 DAYS**

### **3103.1 General.**

The provisions of this section shall apply to tents and other membrane structures erected for a period of less than 180 days. Tents and other membrane structures erected for a period of less than 180 days shall comply with the International Fire Code. Tents and other membrane structures erected for a longer period of time shall comply with section 3102.

### **3103.2 Definitions**

**Temporary Tent:** a membrane structure, enclosed on 3 or more sides, erected for less than 180 days.

**Temporary Canopy:** a membrane structure, open on 2 or more sides, erected for less than 180 days.

### **3103.3 Permit required.**

Temporary structures, temporary tents and other membrane structures that cover an area in excess of 200 square feet (18.58 m<sup>2</sup>), including connecting areas or spaces with a common means of egress or entrance which are used or intended to be used for the gathering together of 10 or more persons, shall not be erected, operated or maintained for any purpose without obtaining a permit from the building official.

### **3103.4 Construction documents.**

A permit application and construction documents shall be submitted for each installation of a temporary structures, temporary tents or other membrane structure. The construction documents shall consist of:

- a) a site plan indicating the size and location of the temporary structure(s), handicap parking and accessible routes.
- b) information delineating the means of egress system – a floor plan showing exit locations; exit pathways and exit width – and the occupant load.
- c) information describing any electrical, mechanical or plumbing use
- d) an affidavit of flame resistance treatment.
- e) bleacher plans (complying with ICC300)
- f) a floor plan showing accessible seating and exit pathways

### **3103.5 Location.**

Temporary structures shall be located in accordance with the requirements of Table 602 based on the fire-resistance rating of the exterior walls for the proposed type of construction.

### **3103.6 Means of egress.**

Temporary structures shall conform to the means of egress requirements of Chapter 10 and shall have a maximum exit access travel distance of 100 feet (30 480 mm).

### **3103.7 Canopies (Residential)**

#### **3103.7.1 Rental Canopies.**

Rental canopies that are used for small gatherings intended for residential use on private property shall not be subject to the above requirements provided all the following requirements are met:

- (a) the canopy is not in excess of 400 square feet (max occupant load of 26 with tables and chairs; or 57 when unfixed chairs only)
- (b) the canopy is open on two or more sides
- (c) the canopy is removed within seven (7) days of initial installation
- (d) any electrical, mechanical or plumbing installations shall be permitted and inspected
- (e) the canopy has flame resistance as required by the International Fire Code.
- (f) this is not a waiver of city Fire or Zoning requirements.

#### **3103.7.2 Privately Purchased Canopies**

Privately purchased tents and canopies from a commercial retailer that does not exceed 200 (18.58 m<sup>2</sup>) square feet are exempt from the requirements of Section 3103.

Section 3109 Swimming Pool Enclosures, is revised to read:

### **SECTION 3109**

### **SWIMMING POOL ENCLOSURES AND SAFETY DEVICES**

#### **3109.1 General.**

Swimming pools shall comply with the requirements of this section and other applicable sections of this code.

#### **3109.2 Definition.**

The following word and term shall, for the purposes of this section and as used elsewhere in this code, have the meaning shown herein.

**SWIMMING POOLS.** Any structure intended for swimming, recreational bathing or wading that contains water over 24 inches (610mm) deep. This includes in-ground, above-ground and on-ground pools; hot tubs; spas and fixed-in-place wading pools. Swimming pools shall be a minimum of 24 inches (609 mm) from the property line, wall, fence or barrier.

**SWIMMING POOL, INDOOR,** is a swimming pool that is totally contained within a structure and surrounded on all four sides by walls of said structure.

**SWIMMING POOL, OUTDOOR,** is any swimming pool that is not an indoor pool.

**ABOVEGROUND/ON-GROUND POOL.** See definition of "swimming pool."

**BARRIER** is a fence, wall, building wall or combination thereof that completely surrounds the swimming pool and obstructs access to the swimming pool.

**GRADE** is the underlying surface, such as earth or a walking surface.

**HOT TUB.** See definition of "spa, non-self-contained" and "spa, self-contained."

**IN-GROUND POOL.** See definition of "swimming pool."

**SEPARATION FENCE** is a barrier that separates all doors of a dwelling unit with direct access to a swimming pool from the swimming pool.

**SPA, NONSELF-CONTAINED,** is a hydro-massage pool or tub for recreational or therapeutic use, not located in health-care facilities, designed for immersion of users and usually having a filter, heater and motor-driven blower. It may be installed indoors or outdoors, on the ground or on a supporting structure, or in the ground or in a supporting structure. A non-self-contained spa is intended for recreational bathing and contains water over 24 inches (610 mm) deep.

**SPA, SELF-CONTAINED,** is a continuous-duty appliance in which all control, water-heating and water-circulating equipment is an integral part of the product, located entirely under the spa skirt. A self-contained spa is intended for recreational bathing and contains water over 24 inches (610 mm) deep.

### **3109.3 Public and Semi-private swimming pools.**

Public and semi-private swimming pools shall be completely enclosed by a fence at least 5 feet (1524 mm) in height or a screen enclosure. Openings in the fence shall not permit the passage of a 4-inch-diameter (102 mm) sphere. The fence or screen enclosure shall be equipped with self-closing and self-latching gates. Gates installed at public or semi-public pools shall be allowed to be accessible from the exterior with a retractable strike keyed lock.

### **3109.4 Residential swimming pools.**

Residential swimming pools shall comply with Sections 3109.4.1 through 3109.4.8.

Exception: A swimming pool with a power safety cover or a spa with a safety cover complying with ASTM F 1346.

#### **3109.4.1 Barrier height and clearances.**

The top of the barrier shall be at least 5 feet (1524 mm) above grade measured on the side of the barrier that faces away from the swimming pool. The maximum vertical clearance between grade and the bottom of the barrier shall be 2 inches (51 mm) measured on the side of the barrier that faces away from the swimming pool. Where the top of the pool structure is above grade, the barrier is authorized to be at ground level or mounted on top of the pool structure, and the maximum vertical clearance between the top of the pool structure and the bottom of the barrier shall be 4 inches (102 mm).

#### **Exception.**

1. The building official may grant an exception to the above barrier requirements when it is determined that there is a natural barrier existing on the premises in the form of thorny/spiny vegetation, landscaping, or topography which prevents access to the pool area.
2. The building official may grant an exception to the above barrier requirements between the dwelling unit and swimming pool when such protection precludes access by a disabled adult resident.

#### **3109.4.1.1 Openings.**

Openings in the barrier shall not allow passage of a 4-inch-diameter (102 mm) sphere.

#### **3109.4.1.2 Solid barrier surfaces.**

Solid barriers which do not have openings shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.

#### **3109.4.1.3 Closely spaced horizontal members.**

Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45 inches (1143 mm), the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall not exceed 1.75 inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) in width.

#### **3109.4.1.4 Widely spaced horizontal members.**

Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches (1143 mm) or more, spacing between vertical members shall not exceed 4 inches (102 mm). Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44mm) in width.

#### **3109.4.1.5 Chain link dimensions.**

Maximum mesh size for chain link fences shall be a 2.25 inch square (57 mm square) unless the fence is provided with slats fastened at the top or the bottom which reduce the openings to no more than 1.75 inches (44 mm).

#### **3109.4.1.6 Diagonal members.**

Where the barrier is composed of diagonal members, the diagonal shall not be greater than 30 degrees from the vertical, and the maximum opening formed by the diagonal members shall be no more than 1.75 inches (44 mm).

#### **3109.4.1.7 Gates.**

Access gates shall comply with the requirements of Sections 3109.4.1.1 through 3109.4.1.6 and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool and shall be self-closing and have a self-latching device. Gates other than pedestrian access gates shall have a self-latching device and shall be equipped with lockable hardware or padlocks and shall remain locked at all times when not in use. Release mechanisms shall be in accordance with Sections 1008.1.8 and 1109.13. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from the bottom of the gate, the release mechanism shall be located on the pool side of the gate at least 3 inches (76 mm) below the top of the gate, and the gate and barrier shall have no opening greater than 0.5 inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.

#### **3109.4.1.8 Dwelling wall as a barrier.**

Where a wall of a dwelling serves as part of the barrier, one of the following shall apply:

1. Doors with direct access to the pool through that wall shall be equipped with an alarm that produces an audible warning when the door and/or its screen, if present, are opened. The audible alarm shall activate within 7 seconds and sound continuously for a minimum of 30 seconds, and be capable of being heard throughout the house during normal household activities with a sound pressure level of not less than 85 dba when measured indoors at 10 feet (3048 mm). The alarm shall automatically reset under all conditions. Should the door remain in the open position after the alarm has reset, the audible alarm shall activate within 7 seconds and sound continuously for a minimum of 30 seconds and be capable of being heard throughout the house during normal

household activities with a sound pressure level of not less than 85 dba when measured indoors at 10 feet (3048 mm). This action will continuously repeat until the door, and/or it's screen, if present, are closed.

The alarm shall be equipped with a manual means, such as touchpad or switch, to temporarily deactivate the alarm for a single opening. Such deactivation shall last for not more than 15 seconds. Should the door remain in the open position after 15 seconds, the alarm shall activate and sound continuously for a minimum of 30 seconds and be capable of providing a sound pressure level of not less than 85 dba when measured indoors at 10 feet (3048 mm). This action will continuously repeat until the door, and/or it's screen, if present, are closed. The alarm shall not be equipped with an on/off switch of any type other than the temporary deactivation switch. The alarm shall be listed in accordance with UL 2017. In dwellings not required to be Accessible, Type A or Type B units, the deactivation switch shall be located 54 inches (1372 mm) or more above the threshold of the door. In dwellings required to be Accessible, Type A or Type B units, the deactivation switch(es) shall be located at 54 inches (1372 mm) maximum and 48 inches minimum above the threshold of the door.

2. The pool shall be equipped with a power safety cover that complies with ASTM F 1346.

3. Other means of protection, such as self-closing doors with self-latching devices located a minimum of 54 inches (1372 mm) above the threshold, which are approved by the administrative authority, shall be accepted so long as the degree of protection afforded is not less than the protection afforded by Section 3109.4.1.8, Item 1 or 2.

#### **3109.4.1.9 Pool structure as barrier.**

Where an aboveground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure, and the means of access is a ladder or steps, then the ladder or steps either shall be capable of being secured, locked or removed to prevent access, or the ladder or steps shall be surrounded by a barrier which meets the requirements of Sections 3109.4.1.1 through 3109.4.1.8. When the ladder or steps are secured, locked or removed, any opening created shall not allow the passage of a 4-inch-diameter (102mm) sphere. The pool shall be have non-climbable exterior sides which are a minimum height of 4 feet (1219 mm).

#### **3109.4.2 Indoor swimming pools.**

Walls of single family residential occupancies surrounding indoor swimming pools shall not be required to comply with Sections 3109.4.1.8.

#### **3109.4.3 Prohibited locations.**

Barriers shall be located so as to prohibit permanent structures, equipment or similar objects from being used to climb the barriers.

#### **3109.5 Entrapment avoidance.**

Suction outlets shall be designed to produce circulation throughout the pool or spa. Single-outlet systems, such as automatic vacuum cleaner systems, or other such multiple suction outlets whether isolated by valves or otherwise shall be protected against user entrapment.

##### **3109.5.1 Suction fittings.**

All pool and spa suction outlets shall be provided with a cover that conforms to ASME A112.19.8M, a 12-inch by 12-inch (305 mm by 305 mm) drain grate or larger, or an approved channel drain system.

Exception: Surface skimmers.

**3109.5.2 Atmospheric vacuum relief system required.**

All pool and spa single- or multiple-outlet circulation systems shall be equipped with an atmospheric vacuum relief should grate covers located therein become missing or broken. Such vacuum relief systems shall include at least one approved or engineered method of the type specified herein, as follows:

1. Safety vacuum release systems conforming to ASME A112.19.17; or
2. Approved gravity drainage system.

**3109.5.3 Dual drain separation.**

Single- or multiple-pump circulation systems shall be provided with a minimum of two suction outlets of the approved type. A minimum horizontal or vertical distance of 3 feet (914 mm) shall separate such outlets. These suction outlets shall be piped so that water is drawn through them simultaneously through a vacuum-relief-protected line to the pump or pumps.

**3109.5.4 Pool cleaner fittings.**

Where provided, vacuum or pressure cleaner fitting(s) shall be located in an accessible position(s) at least 6 inches (152 mm) and not greater than 12 inches (305 mm) below the minimum operational water level or as an attachment to the skimmer(s).

**Section 3109.6 Responsibility of Builder/Installer.**

Prior to constructing a new swimming pool, spa, or hot tub, it shall be the responsibility of the pool builder/installer to inform the pool owner of the above barrier requirements. Violations of Section 3109.6 shall be remedied in accordance with Section 31-33 of the Scottsdale Revised Code.

**Section 3109.7 Responsibility of Owner/Tenant.**

It is the responsibility of the property owner and/or any other person in responsible charge of a swimming pool to ensure that the required swimming pool barrier, including all gates, doors, locks, alarms, and latches are maintained in safe and good working order at all times. No person shall alter or remove any portion of a swimming pool barrier except to repair, reconstruct, or replace the barrier in compliance with the provisions of this chapter.

**Section 3109.7.1 Sell, rent or lease a dwelling.**

A person on entering into an agreement to sell, rent or lease a dwelling with a swimming pool or contained body of water shall give the buyer, lessee or renter a notice explaining safety education and responsibilities of pool ownership as described in section 3109 of the code. Violations of Section 3109.7 shall be remedied in accordance with Section 31-33 of the Scottsdale Revised Code.

**Section 3109.8 Nuisance and Property Maintenance.**

Swimming pools, spas, and hot tubs constructed after the enactment of this chapter which are not enclosed or protected by a barrier as required in Section 3109.4 are hereby declared to be unsafe and nuisance, and shall be resolved by the Code Enforcement Unit of the Citizen &

Neighborhood Resources Department under the procedures outlined in Chapter 18 of the Scottsdale Revised Code.”

*Section 3303.1 Construction Documents is revised to read:*

**3303.1 Construction documents.**

Construction documents and a schedule for demolition must be submitted when required by the building official. Where such information is required, no work shall be done until such construction documents or schedule, or both, are approved..

As used in this code, the term "demolition" means the removal of a building or structure, or any portion thereof. Demolition work includes interior demolition prior to or incidental to remodeling or renovation work.

A demolition permit shall be obtained from the Building Official prior to beginning any interior or exterior demolition of any building or structure. The fee for a demolition permit shall be as set forth in Fees for each permit shall be paid as set forth in Scottsdale Revised Code Chapter 46, Article VII.

**Exception:** Demolition work may be included as part of the work authorized by any building permit provided no demolition work begins prior to obtaining said building permit.

Exterior demolition work shall be adequately kept wet as demolition progresses to minimize dust. All debris shall be entirely removed from the lot after demolition. Any excavation remaining after debris removal shall be completely filled or protected as required by this code.

The use of public property and the protection of pedestrians and the general public during demolition shall be as specified in Section 3306. Demolition sites shall be kept secured from public entry at all times."

**3303.1.1 Asbestos**

Prior to issuing a demolition permit for public, commercial or industrial building, apartment complexes of greater than four (4) units or two (2) or more residential homes (this also includes two or more livable structures on a single property) a permit shall first be obtained and an inspection completed by Maricopa County for asbestos. A copy of the certificate of inspection from Maricopa County shall accompany the application for demolition permit.

**Chapter 34 is deleted in its entirety. [The 2006 Existing Building Code is adopted by reference and amended in section 101.4.9]**

ORDINANCE NO. 3929

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SCOTTSDALE, MARICOPA COUNTY, ARIZONA, AMENDING CHAPTER 31, ARTICLE III SECTION 31-31(2) AND REPEALING SECTION 31-32(b) AND ADOPTING A NEW SECTION 31-32(b) OF THE SCOTTSDALE REVISED CODE RELATING TO THE INTERNATIONAL RESIDENTIAL CODE FOR ONE- AND TWO- FAMILY DWELLINGS, 2006 EDITION.

BE IT ORDAINED by the City Council of the City of Scottsdale, Arizona, as follows:

Section 1. Section 31-31(2) of the Scottsdale Revised Code is hereby amended and shall read as follows:

**Sec. 31-31. Adoption.**

The following documents are adopted by reference and shall be the building code of the city. Three (3) copies of each shall at all times remain in the office of the city clerk and be open to inspection.

(2) The International Residential Code for One- and Two-Family Dwellings, 2006 Edition, as published by the International Code Council, Inc., declared a public record by Resolution #7306 of the City of Scottsdale, and the City of Scottsdale Second Amendments to the International Residential Code for One- and Two-Family Dwellings, 2006 Edition, declared a public records by Resolution #7306 8594 of the City of Scottsdale, are hereby referred to, adopted and made a part hereof as if fully set out in this ordinance

Section 2. Section 31-32(b) of the Scottsdale Revised Code is hereby repealed and replaced by a new Section 31-32(b), which shall read as specified in that certain document entitled "City of Scottsdale Second Amendments to the International Residential Code for One- and Two-Family Dwellings, 2006 Edition," and hereby referred to, adopted and made a part hereof as if fully set out in this Ordinance.

Section 3. Any person found guilty of violating this Ordinance shall, in addition to any other applicable penalty, be subject to the following:

**105.6 Suspension or revocation.** The building official is authorized to suspend or revoke a permit issued under the provisions of this code wherever the permit is issued in error or on the basis of incorrect, inaccurate or incomplete information, or in violation of any ordinance or regulation or any of the provisions of this code.

**110.4 Revocation.** The building official is authorized to, in writing, suspend or revoke a certificate of occupancy or completion issued under the provisions of this code wherever the certificate is issued in error, or on the basis of incorrect information supplied, or where it is determined that the building or

structure or portion thereof is in violation of any ordinance or regulation or any of the provisions of this code.

**113.4 Violation penalties.** Any person who violates a provision of this code or fails to comply with any of the requirements thereof or who erects, constructs, alters or repairs a building or structure in violation of the approved construction documents or directive of the building official, or of a permit or certificate issued under the provisions of this code, shall be subject to the penalties as prescribed by law.

Section 4. The repeal of any provision of the Scottsdale Revised Code effectuated by this Ordinance does not affect the rights and duties that matured or penalties that were incurred and proceedings that were begun before the effective date of this Ordinance.

Section 5. If any section, subsection, sentence, clause, phrase or portion of this Ordinance or any part of these Second Amendments to the 2006 International Residential Code for One- and Two-Family Dwellings, adopted herein by reference is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions thereof. If there is any conflict or inconsistency between the provisions of this Ordinance, the more restrictive provisions apply.

Section 6. The effective date of this Ordinance shall be thirty (30) days after adoption.

PASSED AND ADOPTED BY THE Council of the City of Scottsdale, Maricopa County, Arizona, this \_\_\_\_ day of \_\_\_\_\_, 2011.

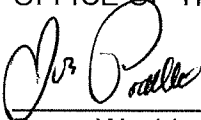
ATTEST:

CITY OF SCOTTSDALE,  
a municipal corporation

\_\_\_\_\_  
Carolyn Jagger  
City Clerk

\_\_\_\_\_  
W.J. "Jim" Lane  
Mayor

APPROVED AS TO FORM:  
OFFICE OF THE CITY ATTORNEY



\_\_\_\_\_  
Bruce Washburn, City Attorney  
By Joe Padilla, Sr. Assistant City Attorney

RESOLUTION NO. 8594

A RESOLUTION OF THE CITY OF SCOTTSDALE, MARICOPA COUNTY, ARIZONA, DECLARING AS A PUBLIC RECORD THAT CERTAIN DOCUMENT FILED WITH THE CITY CLERK OF THE CITY OF SCOTTSDALE AND ENTITLED "CITY OF SCOTTSDALE SECOND AMENDMENTS TO THE INTERNATIONAL RESIDENTIAL CODE FOR ONE- AND TWO- FAMILY DWELLINGS, 2006 EDITION."

WHEREAS, on July 10, 2007, the City of Scottsdale adopted the 2006 Edition of the International Residential Code For One- And Two- Family Dwellings, and the City of Scottsdale Amendments to the 2006 Edition of the International Residential Code for One- And Two- Family Dwellings; and

WHEREAS, it is necessary to repeal the City of Scottsdale Amendments to the 2006 International Residential Code for One- and Two- Family Dwellings and adopt the City of Scottsdale Second Amendments to the International Residential Code for One- and Two- Family Dwellings, 2006 Edition; and

WHEREAS, State Law permits cities to declare documents as public records.

THEREFORE BE IT RESOLVED by the Council of the City of Scottsdale as follows:

Section 1. That certain document entitled, "City of Scottsdale Second Amendments to the International Residential Code for One- and Two- Family Dwellings, 2006 Edition", is hereby declared to be a public record and three copies are ordered to remain on file in the office of the City Clerk and kept available for public use and inspection.

PASSED AND ADOPTED by the Council of the City of Scottsdale this \_\_\_\_\_ day of \_\_\_\_\_, 2011.

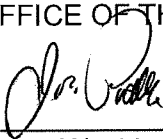
ATTEST:

CITY OF SCOTTSDALE, an  
Arizona municipal corporation

\_\_\_\_\_  
Carolyn Jagger  
City Clerk

\_\_\_\_\_  
W.J. "Jim" Lane  
Mayor

APPROVED AS TO FORM:  
OFFICE OF THE CITY ATTORNEY

  
\_\_\_\_\_  
Bruce Washburn, City Attorney  
By Joe Padilla, Sr. Assistant City Attorney

ATTACHMENT #4



**Second Amendments to the  
International Residential Code for One-  
And Two-Family Dwellings, 2006 Edition**

**RESIDENTIAL CODE SECOND AMENDMENTS**

**Ordinance No. 3929**

**PLANNING, NEIGHBORHOOD & TRANSPORTATION  
DEPARTMENT**

## Section 31-32 (b) – Amendments

**The International Residential Code for One- and Two- Family Dwellings, 2006 Edition, adopted by Scottsdale Revised Code Section 31-31(2) is amended in the following respects:**

*Delete Chapter 1, Administration, and substitute Chapter 1 of the 2006 IBC as amended and adopted in Scottsdale Revised Code Chapter 31, Article III, Section 31-32.*

**Appendices.** Provisions in the appendices shall not apply unless specifically referenced in the adopting ordinance. The following appendices of the 2006 International Residential Code are adopted:

- APPENDIX A - SIZING AND CAPACITIES OF GAS PIPING
- APPENDIX B - SIZING OF VENTING SYSTEMS SERVING APPLIANCES EQUIPPED WITH DRAFT HOODS, CATEGORY I APPLIANCES, AND APPLIANCES LISTED FOR USE AND TYPE B VENTS
- APPENDIX C - EXIT TERMINALS OF MECHANICAL DRAFT AND DIRECT-VENT VENTING SYSTEMS
- APPENDIX D - RECOMMENDED PROCEDURE FOR SAFETY INSPECTION OF AN EXISTING APPLIANCE INSTALLATION
- APPENDIX G - SWIMMING POOLS, SPAS AND HOT TUBS
- APPENDIX H - PATIO COVERS
- APPENDIX J - EXISTING BUILDINGS AND STRUCTURES
- APPENDIX K - SOUND TRANSMISSION
- APPENDIX O - GRAY WATER RECYCLING SYSTEM

Amend Appendix O by deleting "Note" at the beginning of the chapter.

APPENDIX J - GRADING, of the IBC as amended

*Section R201.4 is amended to read as follows:*

**R201.4 Terms not defined.** Where terms are not defined through the methods authorized by this section, such terms shall have ordinarily accepted meanings such as the context implies. Webster's Third New International Dictionary of the English Language, Unabridged, shall be considered as providing ordinarily accepted meanings.

*Section R301.1 is amended to read as follows:*

**R301.1.1 Alternative provisions.** As an alternative to the requirements in Section R301.1 with prior approval of the building official the following standards are permitted subject to the limitations of this code and the limitations therein. Where engineered design is used in conjunction with these standards the design shall comply with the *International Building Code*.

1. American Forest and Paper Association (AF&PA)  
*Wood Frame Construction Manual (WFCM).*

2. American Iron and Steel Institute (AISI), *Standard for Cold-Formed Steel Framing- Prescriptive Method for One- and Two-family Dwellings (COFS/PM).*

*Complete Table R301.2(1) as follows:*

Ground snow load:	0
Wind speed :	90
Seismic design category :	C
Weathering :	negligible
Frost line depth :	Final Grade
Termite :	moderate to heavy
Decay :	none to slight
Winter design temp :	34 degrees

**Delete all other headings**

Revise Table R301.5 as follows:

**TABLE R301.5**

**MINIMUM UNIFORMLY DISTRIBUTED LIVE LOADS (In pounds per square foot)**

USE	LIVE LOAD
Attics with storage <sup>b,e</sup>	40
Sleeping rooms	40

**All other values to remain unchanged.**

Revise Section R303.1 (Habitable rooms), Exception 2 to read as follows:

2. With the exception of living rooms, bedrooms, kitchens, breakfast and dining rooms, the glazed areas need not be installed in rooms where Exception 1 above is satisfied and artificial light is provided capable of producing an average illumination of 6 foot-candles (65 lux) over the area of the room at a height of 30 inches (762 mm) above the floor level.

Section R303.3 is amended to read as follows:

**R303.3 Bathrooms.** Bathrooms, water closet compartments and other similar rooms shall be provided with aggregate glazing area in windows of not less than 3 square feet (0.279 m<sup>2</sup>). A mechanical ventilation system shall be provided. The minimum ventilation rates shall be 50 cfm (23.6 L/s) for intermittent ventilation or 20 cfm (9.4 L/s) for continuous ventilation. Ventilation air from the space shall be exhausted directly to the outside.

**Exception:** The glazed areas shall not be required where artificial light is provided.

Section R303.8 is deleted and amended to read as follows:

**R303.8 Required Heating and Cooling**

**R303.8.1 Heating**

Interior spaces intended for human occupancy shall be provided with active or passive heating facilities capable of maintaining a room temperature of 68°F (20°C) in all habitable rooms, bathrooms and toilet rooms based on the winter outdoor design temperature of 34°F (01°C) for Phoenix locality, indicated in Appendix D of the International Plumbing Code. Cooking appliances shall not be used to provide space heating to meet the requirements of this section.

**Exception:** Interior spaces where the primary purpose is not associated with human comfort.

### **R303.8.2 Cooling**

Interior spaces intended for human occupancy shall be provided with cooling facilities capable of maintaining a room temperature of 85°F (29°C) in all habitable rooms, bathrooms and toilet rooms based on the summer outdoor design temperature of 107°F for Phoenix locality, indicated in Appendix D of the International Plumbing Code.

**Exception:** Interior spaces where the primary purpose is not associated with human comfort.

### **R303.8.3 Heating & Cooling supply.**

Every owner and operator of any building who rents, leases or lets one or more dwelling units or sleeping units on terms, either expressed or implied shall comply with section R303.8.

**Exception:** Interior spaces where the primary purpose is not associated with human comfort.

### **R303.8.4 Maintenance**

All heating and cooling equipment shall be maintained in good working order so the requirements of Section R303.8.1 & R303.8.2 are met.

*Section R309.1 is amended to read as follows:*

**R309.1 Opening protection.** Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood doors, not less than 1<sup>3</sup>/<sub>8</sub> inch (35 mm) in thickness, solid or honeycomb core steel doors not less than 1<sup>3</sup>/<sub>8</sub> inches (35 mm) thick, or 20-minute fire-rated doors. 1-3/8 inch (35 mm) solid wood door may be a paneled or non-paneled door. Doors providing opening protection shall be maintained self-closing and self-latching.

*Section R310.1 Emergency escape and rescue required is amended by adding the following:*

#### **R310.1.5 Emergency Egress;**

Where emergency egress windows from a bedroom or basement open into a backyard, a means of access to a public way must be provided. The route to the public way must comply with the requirements for an egress window (IRC 310.1).

If there is a pool in the backyard, any gate used for emergency access must be self-closing and self-latching, and openable from the inside without the use of a key or special knowledge.

If the backyard is large enough for a person to travel 50 feet from the house, it is not necessary to provide access to a public way.

*Section R310.2 Window wells, is amended by adding the following exception:*

#### **R310.2 Window wells.**

The minimum horizontal area of the window well shall be 9 square feet (0.9 m<sup>2</sup>), with a minimum horizontal projection and width of 36 inches (914 mm). The area of the window well shall allow the emergency escape and rescue opening to be fully opened.

**Exception:** The ladder or steps required by Section R310.2.1 shall be permitted to encroach a maximum of 6 inches (152 mm) into the required dimensions of the window well.

**R310.2.1 Ladder, steps and guardrail.**

Window wells with a vertical depth greater than 44 inches (1118 mm) shall be equipped with a permanently affixed ladder or steps usable with the window in the fully open position. Ladders or steps required by this section shall not be required to comply with Sections R311.5 and R311.6. Ladders or rungs shall have an inside width of at least 12 inches (305 mm), shall project at least 3 inches (76 mm) from the wall and shall be spaced not more than 18 inches (457 mm) on center vertically for the full height of the window well.

When a guardrail is used for protection around a window well enclosure, the egress ladder shall extend to the top of the guardrail.

When a grate is used as a window well enclosure, an accessible section shall be openable with a minimum net area of 5.7 square feet (0.53 m<sup>2</sup>), and with a minimum net opening dimension of 24 inches (610 mm) in any direction.”

**R310.2.1.1 Light Wells.**

A light well may be used at exterior windows located below the adjacent ground level for natural light and/or ventilation when complying with the following:

- “1. The minimum horizontal width of well (dimension perpendicular to window) shall be 24 inches (610 mm), when the vertical depth of the well is 48 inches (1,219 mm) or less.
- “2. The minimum horizontal width of well (dimension perpendicular to window) shall be 36 inches (914 mm), when the vertical depth of the well is more than 48 inches (1,219 mm) but less than 72 inches (1,829 mm).
- “3. The minimum horizontal width of well (dimension perpendicular to window) shall be 48 inches (1,219 mm), when the vertical depth of the well exceeds 72 inches (1,829 mm).

The depth of the well may be measured from the window sill to the top of the well. Where the well is 30 inches (762 mm) or more in depth, and adjacent to an activity area, a grate or guardrail shall be provided to enclose the well. The length of the well shall extend at least 4 inches (102 mm) beyond each side of window.

*Section R311.4.3, Landings at doors, is amended by adding the following exception:*

4. All exterior doors, other than the exit door required by Section R311.4.1 may swing over a landing with a drop of not more than 4 inches below the top of the threshold.

*Section R313.2 is amended by adding the following item:*

4. Where the ceiling height of a room open to the hallway servicing bedrooms exceeds that of the opening to the hallway by 24 inches (610 mm) or more, smoke detectors shall be installed in the hallways and in the adjacent room.

*Section R313.3 is amended by adding the following:*

### Section R313.3.1 Apartments, Condominiums and Conversions.

All apartments and condominiums constructed without a sprinkler system and all conversions made in buildings without a sprinkler system shall install smoke alarms in compliance with Section 907.2.10 of the most current adopted building code.

**Exception:** If construction is not being done or if construction does not include the removal of the ceiling membrane – exposing the building framing – the smoke alarms may be battery operated only, provided the battery is a long life lithium battery or equal.  
All structures shall be in compliance on or before January 1, 2009.

*Section R317.1 is amended to read as follows:*

**R317.1 Two-family dwellings.** Dwelling units in non-sprinkled two-family dwellings shall be separated from each other by wall and/or floor assemblies having not less than 1-hour fire-resistive rating when tested in accordance with ASTM E 119. Fire-resistance rated floor-ceiling and wall assemblies shall extend to and be tight against the exterior wall, and wall assemblies shall extend to the underside of the roof sheathing.

Dwelling units in two-family dwellings shall be separated from each other by wall and/or floor assemblies having not less than a 1-hour fire-resistance rating when tested in accordance with ASTM E 119. Fire-resistance-rated floor-ceiling and wall assemblies shall extend to and be tight against the exterior wall, and wall assemblies shall extend to the underside of the roof sheathing.

**Exception:** A fire resistance rating of ½ hour shall be permitted in buildings equipped throughout with an automatic sprinkler system installed in accordance with Scottsdale Revised Code, Chapter 36, Article II, Division 1, Section 37-18.

*Add Section R325 as follows:*

**R325 Automatic Fire-extinguishing Systems.** An automatic sprinkler system shall be installed in accordance with Scottsdale Revised Code, Chapter 36, Article II, Division 1, Section 36-18, Section 903.

*Table R403.1 is revised to read as follows:*

**TABLE R403.1**  
**MINIMUM WIDTH OF CONCRETE FOOTINGS (inches)<sup>1, 2, 3, 5</sup>**

Number of Floors Supported by the Foundation <sup>3</sup>	Thickness of Foundation Wall (inches) <b>Nominal</b>		Width of Footing (W) (inches)		Thickness of Footing (inches)		Depth Below Undisturbed Soil (inches)	
	Concrete	Unit Masonry	Stud Wall <sup>1</sup>	Masonry Wall	Stud Wall	Masonry Wall	Stud Wall	Masonry Wall
1	6	6	16	16	6	8	18	18
2	8	8	16	20	8	8	18	18

For SI: 1 inch = 25.4 mm, 1 pound per square foot = 0.0479 kN/m<sup>2</sup>.

1. Interior stud bearing walls may be supported by isolated footings. The footing width and length shall be twice the width shown in this table and the footings shall be spaced not more than 6 feet (1,829mm) on center.
2. A minimum of two (2) #4 reinforcing bars (minimum grade 40) are required in the footing/stem concrete. If metal hold downs are used, one #4 horizontal reinforcing bar must be placed within the top 6" of the stem wall.
3. Foundations may support a roof in addition to the stipulated number of floors. Foundations supporting roofs only shall be as required for supporting only one floor.
4. Isolated columns carrying loads in excess of 750 lbs shall be supported on minimum 4 square feet of footing, with minimum width of 24 inches. Maximum bearing pressure from service loads shall not exceed 1500 psf unless recommended by the soils report.
5. A certified soils report from a registered design professional may be used in lieu of these requirements.

*Revise Section R403.1.4 as follows:*

**R403.1.4 Minimum depth.**

All footings shall be placed at least 18 inches (457 mm) below the undisturbed ground surface. Where applicable, the depth of footings shall also conform to Sections R403.1.4.1 through R403.1.4.2.

*Revise figure R403.1.7.1 as follows :*

*Replace figure R403.1.7.1 Foundation clearances from slopes with IBC figure 1805.3.1 foundation clearances from slopes.*

*Revise Top of Slope Note to read:*

H/3 or 1.5 times footing width (whichever is greater) but need not exceed 40 ft. max.

*Modify Section R502.11.4 Truss design drawings by adding the following:*

**R502.11.4.1 Deferred Submittals.**

At the option of the registered design professional in responsible charge, truss design drawings may be submitted in compliance with Section 106.3.4.2 "Deferred Submittals".

*Figure R602.3(2) FRAMING DETAILS, the note in the upper right corner is revised to read:*  
**STAGGER JOISTS 48 INCHES (1219 mm) OR USE SPLICE PLATES – SEE SECTION R602.3.2**

*Table R602.3(1) FASTENER SCHEDULE FOR STRUCTURAL MEMBERS, under the column entitled "DESCRIPTION OF BUILDING ELEMENTS", change the tenth line to read:*

Double top plates, minimum ~~24-inch~~ 48-inch (1219 mm) offset of end joints, face nail in lapped area

*Modify Section 802.10.1 by adding:*

**R802.10.1.1 Deferred Submittals.**

At the option of the registered design professional in responsible charge, truss design drawings may be submitted in compliance with Section ~~106.3.4.2~~ R502.11.4.1 Deferred Submittals.

*Modify Section R806.1 by adding exception:*

Exception: Enclosed attic and rafter spaces are not required to be ventilated where the dimension is 24 inches or less between the ceiling and bottom of roof sheathing. Roof assembly installation shall comply with R904.

*Section R905.2 Asphalt shingles is amended by adding the following:*

**905.2.8.6 Drip edge.**

Provide drip edge at eaves and gables of shingle roofs. Overlap to be a minimum of 2 inches (51 mm). Eave drip edges shall extend 0.25 inch (6.4 mm) below sheathing and extend back on the roof a minimum of 2 inches (51 mm). Drip edge shall be mechanically fastened a maximum of 12 inches (305 mm) o.c.

*Section 905.3.4 Tile is amended by adding the following:*

**905.3.4 Tile.**

Clay roof tile shall comply with ASTM C 1167.

**R905.3.4.1 Weather proof material**

Clay tile that has not been evaluated and a National Evaluation Report (NER) issued, shall not be considered to be an effective weather-proof material, as required by Chapter 9 of the International Residential Code (IRC).

Non-approved clay tile shall be placed over an approved roof covering as prescribed in IRC Chapter 9 Section 905.2 Asphalt shingles or Section 905.5 Mineral-surfaced roll roofing.

**R905.3.4.2 Attachment**

Attachment of non-approved clay tile shall conform to IRC Section 905.3.6, or methods approved by NER Evaluation Service. Nails or other fastener heads shall be covered by mastic.

*R905.3.5 Concrete tile is amended by adding the following:*

**R905.3.5 Concrete tile.**

Concrete roof tile shall comply with ASTM C 1492.

**R905.3.5.1 Weather proof material**

Concrete tile that has not been evaluated and a National Evaluation Report (NER) issued, shall not be considered to be an effective weather-proof material, as required by Chapter 9 of the International Residential Code (IRC).

Non-approved concrete tile shall be placed over an approved roof covering as prescribed in IRC Chapter 9 Section 905.2 Asphalt shingles or Section 905.5 Mineral-surfaced roll roofing.

**R905.3.5.2 Attachment**

Attachment of non-approved concrete tile shall conform to IRC Section 905.3.6, or methods approved by NER Evaluation Service. Nails or other fastener heads shall be covered by mastic.

*Section R905.5 Mineral-surfaced roll roofing is amended by adding the following:*

#### **905.5.6 Drip edge.**

Provide drip edge at eaves and gables of shingle roofs. Overlap to be a minimum of 2 inches (51 mm). Eave drip edges shall extend 0.25 inch (6.4 mm) below sheathing and extend back on the roof a minimum of 2 inches (51 mm). Drip edge shall be mechanically fastened a maximum of 12 inches (305 mm) o.c.

*Add Section R1000, Clean Burning Fireplaces, to read:*

### **SECTION R1000 - CLEAN BURNING FIREPLACES**

#### **R1000.1 Clean Burning Fireplaces.**

The purpose of this Standard is to regulate fireplaces, woodstoves, or other solid-fuel burning devices to reduce the amount of air pollution caused by particulate matter and carbon monoxide.

The effective date of the regulations and prohibitions set forth in this Standard took effect on December 31, 1998.

**R1000.2 Definitions:** For purposes of this Standard, the following words and terms shall be defined as follows:

**FIREPLACE** means a built in place masonry hearth and fire chamber or a factory-built appliance, designed to burn solid fuel or to accommodate gas or electric log insert or similar device, and which is intended for occasional recreational or aesthetic use, not for cooking, heating, or industrial processes.

**SOLID FUEL** includes but is not limited to wood, coal, or other nongaseous or non-liquid fuels, including those fuels defined by the Maricopa County Air Pollution Control Officer as "inappropriate fuel" to burn in residential wood-burning devices.

**WOODSTOVE** means a solid-fuel burning heating appliance including a pellet stove, which is either freestanding or designed to be inserted into a fireplace.

#### **R1000.3 Installation Restrictions:**

- a) On or after the effective date, no person, firm or corporation shall construct or install a fireplace or a woodstove, and the Building Official shall not approve or issue a permit to construct or install a fireplace or a woodstove, unless the fireplace or woodstove complied with one of the following:
  1. A fireplace which has a permanently installed gas or electric log insert.
  2. A fireplace, woodstove, or other solid-fuel burning appliance which has been certified by the United States Environmental Protection Agency as conforming to 40 Code of Federal Regulations Part 60, Subpart AAA as in effect on July 1, 1990.
  3. A fireplace, woodstove or other solid-fuel burning appliance which has been tested and listed by a nationally recognized testing agency to meet performance standards equivalent to those adopted by 40 Code of Federal Regulations part 60, Subpart AAA as in effect on July 1, 1990.
  4. A fireplace, woodstove or other solid-fuel burning appliance which has been determined by the Maricopa County Air Pollution Control Officer to meet performance standards equivalent to those adopted by 40 Code of Federal Regulations part 60, Subpart AAA as in effect on July 1, 1990.

5. A fireplace which has a permanently installed woodstove insert which complies with subparagraphs 2, 3, or 4 above.
- b) The following installations are not regulated by this Standard and are not prohibited by this Standard:
  1. Furnace, boilers, incinerators, kilns, and other similar space heating or industrial process equipment.
  2. Cook-stoves, barbecue grills, and similar appliances designed primarily for cooking.
  3. Fire pits and other outdoor fireplaces.

#### **R1000.5 Fireplace or Woodstove Alterations Prohibited:**

- a) On or after the effective date, no person, firm or corporation shall alter or remove a gas or electric log insert or a woodstove insert from a fireplace for purposes of converting the fireplace to directly burn wood or other solid fuel.
- b) On or after the effective date, no person, firm or corporation shall alter a fireplace, woodstove or other solid fuel burning appliance in any manner that would void its certification or operational compliance with the provisions of this Standard.

#### **R1000.6 Permits Required:**

In addition to the provisions and restrictions of this Standard, construction, installation or alternation of all fireplaces, woodstoves and other gas, electric or solid-fuel burning appliances and equipment shall be done in compliance with provisions of the Construction Code and shall be subject to the permits and inspections required by the Construction Code.

*R1004.3 Decorative shrouds is amended by adding the following:*

#### **R1004.3 Decorative shrouds.**

Decorative shrouds shall not be installed at the termination of chimneys for factory-built fireplaces except where the shrouds are listed and labeled for use with the specific factory-built fireplace system and installed in accordance with the manufacturer's installation instructions.

Exception: Where a factory-built fireplace/chimney system designed as a wood-burning appliance has a gas log permanently installed, a shroud of non-combustible construction may be installed which has a minimum of two opposite sides open. Each opening shall be a minimum of twice the area of the flue. The design of the shroud shall be approved by the building official.

*Add the following section to Chapter 10 Chimneys and Fireplaces:*

#### **R1007 Outdoor Fireplaces, wood stoves or wood fire pits**

##### **R1007.1 Outdoor Fireplaces**

Fireplaces, wood stoves or fire pits (either surface or in-ground) approved to be installed outdoors, whether as a manufactured product or site built, that are capable of burning wood shall meet one of the following requirements:

**R1007.1.1** not be installed closer than 8 feet to any property line that abuts another property other than an alley or public way.

**R1007.1.2** shall not be installed closer than 10 feet to any property line in a zero lot line subdivision other than an alley or public way.

### **R1007.2 Chimneys and flues**

Any fireplace, wood stove or fire pit, whether manufactured or site built, which requires or has a chimney or flue installed, shall meet all the requirements for termination as per Section **R1003.9 Termination**

#### **R1007.2.1 Chimney Termination**

Fireplace and wood stove chimney termination, and firepits, which, due to their construction or listing are capable of burning wood, shall be set back at least 8 feet (244 cm) from a property line, 10 feet (305 cm) from a property line in zero lot line subdivisions.

**Exception:** When documentation is provided indicating that buildings are precluded from being built closer than 10 feet (305 cm) from the proposed fireplace, wood stove or firepit, a lesser separation may be considered by the building official.

When a letter provided by the owner of the property stating that the fireplace or firepit will be used for gas flames only, the distance may be reduce to not less than 48 inches (122 cm) from a property line or any opening into a building as required in the International Fuel Gas Code

*FPN: This section was created due to a rise in complaints from neighbors experiencing rogue smoke.*

### **R1007.3 Permits Required:**

The installation of all exterior fireplaces, woodstoves and fire pits either gas, electric or solid-fuel burning appliances shall be done in compliance with provisions of the Construction Code and shall be subject to the permits and inspections required by the Construction Code. A site plans shall be submitted at the time of permit application indication the location of the appliance and it's proximity to any property line, alley or public way and all structures located on the property.

*Revise Section N1101.2 Compliance to read:*

**N1101.2 Compliance.** Compliance with this chapter shall be demonstrated by passing REScheck energy compliance software with a score at least 15% above the IECC.

*Revise Section M1507.2 by adding the following:*

**M1507.2 Recirculation of air.** Exhaust air from kitchens, bathrooms and toilet rooms shall not be recirculated within a residence or to another dwelling unit and shall be exhausted directly to the outdoors. Exhaust air from kitchens, bathrooms and toilet rooms shall not discharge into an attic, crawl space or other areas inside the building.

*Add the following item to Section M2005 (Water Heaters):*

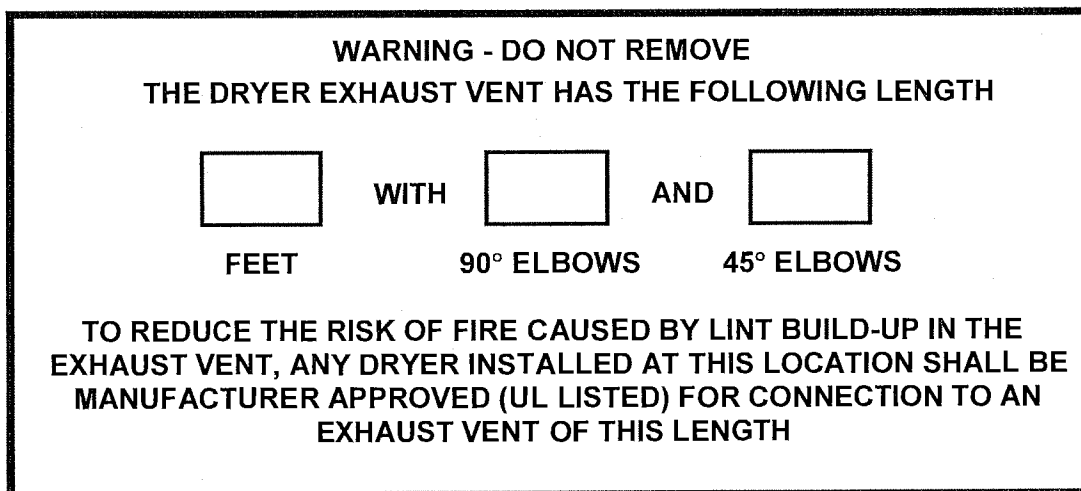
**"M2005.5 Hot water recirculation pumps.** Provide a hot water demand controlled recirculation pump for water heaters located more than 20 feet from furthest fixture served. A manual control or occupant sensor switch shall operate the pump with an automatic temperature sensor shut-off.

**Exception:** Homes designed with a central manifold (home-run) distribution system."

*Section 1502.6 Duct length is amended to read:*

**M1502.6 Duct length.**

The maximum length of a clothes dryer exhaust duct shall not exceed 25 feet (7620 mm) from the dryer location to the wall or roof termination. The maximum length of the duct shall be reduced 2.5 feet (762 mm) for each 45-degree (0.8 rad) bend and 5 feet (1524 mm) for each 90-degree (1.6 rad) bend. The maximum length of the exhaust duct does not include the transition duct. In new or renovated construction, the contractor shall indicate on a plaque the total length and total number of 90 degree and 45 degree turns of the dryer exhaust system. The plaque shall be located close to and in plain sight of the dryer. (The plaque may be similar to the example shown below). The owner and/or the supplier shall verify that any replacement dryer meets the exhaust specifications indicated on the plaque.



Chapters 25 through 32 are deleted. Refer to the Plumbing Code as amended and adopted in the Scottsdale Revised Code, Chapter 31, Article VII.

Table E3503.1 is revised to read:

**Table E3503.1** Conductor Types and Sizes for 120/240-Volt and 120/208-Volt, 3-Wire, Single-Phase-Dwelling Services and Feeders. Conductor Types RH, RHH, RHW, RHW-2, THHN, THHW, THW, THW-2, THWN, THWN-2, XHHW, XHHW-2, SE, USE, USE-2

Copper (AWG or kcmil)	Aluminum or Copper-Clad Aluminum	Service or Feeder Rating (Amperes)		Min. Ground Conductor <sup>a</sup>	
		≤ 30°C	> 30°C	Copper	Alum
4	2	100	----	8 <sup>b</sup>	6 <sup>c</sup>
3	1	110	----	8 <sup>b</sup>	6 <sup>c</sup>
2	1/0	125	100	8 <sup>b</sup>	6 <sup>c</sup>
1	2/0	150	125	6 <sup>c</sup>	4
1/0	3/0	175	150	6 <sup>c</sup>	4
2/0	4/0	200	175	4 <sup>d</sup>	2 <sup>d</sup>
3/0	250	225	200	4 <sup>d</sup>	2 <sup>d</sup>
4/0	300	250	225	2 <sup>d</sup>	1/0 <sup>d</sup>
250	350	300	250	2 <sup>d</sup>	1/0 <sup>d</sup>
350	500	350	300	2 <sup>d</sup>	1/0 <sup>d</sup>
400	600	400	350	1/0 <sup>d</sup>	3/0 <sup>d</sup>

CAUTION - UTILITY COMPANY CONDUCTOR SIZE REQUIREMENTS MAY VARY. CONSULT WITH SERVING UTILITY PRIOR TO INSTALLATION.

- a. Where protected by a metal raceway, grounding electrode conductors shall be electrically bonded to the metal raceway at both ends.
- b. No. 8 grounding electrode conductors shall be protected with metal conduit or nonmetallic conduit.
- c. Where not protected, No. 6 grounding electrode conductors shall closely follow a structural surface for physical protection. The supports shall be spaced not more than 24 inches on center and shall be within 12 inches of any enclosure or termination.
- d. Where the sole grounding electrode system is a ground rod or pipe as covered in Section E3508.2, the grounding electrode conductor shall not be required to be larger than No. 6 copper or No. 4 aluminum. Where the sole grounding electrode system is the footing steel as covered in Section E3508.1.2, the grounding electrode conductor shall not be required to be larger than No. 4 copper conductor.

*Add the following sentence to Section E3601.1 :*

Aluminum conductors are not allowed for branch circuits 30 amps or less.

*Section E3808.8 is amended to read as follows:*

**E3808.8 Types of Equipment Grounding Conductors.** The equipment grounding conductor run with or enclosing the circuit conductors shall be one or more or a combination of the following:

1. A copper or other corrosion-resistant conductor. This conductor shall be solid or stranded; insulated, covered, or bare; and in the form of a wire or a busbar of any shape.
2. Rigid metal conduit.
3. Intermediate metal conduit.
4. Electrical metallic tubing with an individual equipment grounding conductor.
5. Flexible metal conduit with an individual equipment grounding conductor and where both the conduit and fittings are listed for grounding.
6. Armor of Type AC cable with an individual equipment grounding conductor.
7. Surface metal raceway.
8. Metal-clad cable, where both the cable and fittings are listed for grounding.
9. Liquidtight flexible metal conduit with an individual equipment grounding conductor and terminated with fittings listed for grounding.

*Appendix G is amended by the following:*

**Appendix G - SWIMMING POOLS, SPAS AND HOT TUBS**

Section AG101, AG102, AG103, AG104, AG105, AG106, AG107 & AG108 is deleted and replaced with Section 3109 of the 2006 IBC as amended and adopted in Scottsdale Revised Code, Chapter 31, Section 31-32

*APPENDIX H – PATIO COVERS is amended to read:*

**SECTION AH103 - PERMITTED USES**

**AH103.1 General.**

Patio covers shall be permitted to be detached from or attached to dwelling units. Patio covers shall be used only for recreational, outdoor living purposes and not as carports, garages, storage rooms or habitable rooms.

#### AH103.3.1 Fire rating

All patio covers shall be protected with a one-hour fire-resistive wall under the following conditions:

1. Combustible patio covers located less than 3 feet from an adjacent property line.
2. Non-combustible patio covers located less than 1 foot - 6 inches from an adjacent property line.

**Exception:** Where the one-hour fire-resistive wall is required, a one-hour roof-ceiling assembly may be substituted in the following manner:

- 1) Where the roof-ceiling framing members are parallel to the one-hour wall, the one-hour roof-ceiling assembly shall extend at least 5 feet from wall.
- 2) Where the roof-ceiling framing members are perpendicular to the one-hour wall, the entire span of such framing shall be of not less than one-hour fire-resistive construction.
- 3) Openings in the roof shall not be located within 5 feet of the property line.

#### AH103.3.2 Location

Patio covers may cantilever over an easement a distance not greater than 1/3 the width of the easement. No portion of the patio cover structure shall be placed within an easement.

## ORDINANCE NO. 3930

AN ORDINANCE OF THE COUNCIL OF THE CITY OF SCOTTSDALE, MARICOPA COUNTY, ARIZONA, REPEALING SECTION 31-152 OF CHAPTER 31, ARTICLE VI OF THE SCOTTSDALE REVISED CODE, AND ADOPTING A NEW SECTION 31-152 RELATING TO "INTERNATIONAL MECHANICAL CODE, 2006 EDITION", INCLUDING APPENDICES.

BE IT ORDAINED by the City Council of the City of Scottsdale, Arizona, as follows:

Section 1. Section 31-152 of the Scottsdale Revised Code is hereby repealed and replaced by a new Section 31-152, which shall read as follows:

### **Sec. 31-152 Amendments**

***The International Mechanical Code, 2006 Edition, adopted by section 31-151 is amended in the following respects:***

*Delete Chapter 1, Administration, and substitute Chapter 1 of the 2006 IBC as amended and adopted in Scottsdale Revised Code Chapter 31, Article III, Section 31-32.*

*Section 201.4 Revise as follows:*

**201.4 Terms not defined.** Where terms are not defined through the methods authorized by this chapter, such terms shall have ordinarily accepted meanings such as the context implies. Webster's Third New International Dictionary of the English Language, Unabridged, shall be considered as providing ordinarily accepted meanings.

*Chapter 2, DEFINITIONS, Section 202 - S, SMOKE DETECTOR is added to read:*

SMOKE DETECTOR is an approved listed and labeled device that senses visible or invisible particles of combustion.

*Section 303.3 Add item 6 to read as follows:*

6. Any room operating under negative pressure unless the appliances are listed for that use.

*Section 304.3 Add an exception to read as follows:*

**Exception:** Clothes dryers installed in private garages.

*Section 506.3.10 Revise exceptions to read as follows:*

**Exception:**

The shaft enclosure provisions of this section shall not be required where a duct is concealed within the interstitial space of a single story building and does not penetrate fire-rated separations and where the surface of the duct is continuously

covered on all sides from the point at which the duct penetrates a ceiling, wall or floor to the outlet terminal with a classified and labeled material, system, method of construction or product specifically evaluated for such purpose, in accordance with a nationally recognized standard for such enclosure materials. Exposed duct wrap systems shall be protected where subject to physical damage.

**Delete exception 2.**

*Section 603.17, Registers, grilles and diffusers, add a sentence to read:*

Registers, grilles and diffusers shall be mechanically fastened to rigid supports or structural members on at least two opposite sides in addition to being connected to the ductwork they serve.

*Section 606.2, Smoke Detection Systems Control, Where required. Add a second exception to read:*

**Exception:** Evaporative Coolers which supply 100% outside air.

*Section 702.3.1, is revised to read:*

**702.3.1 Number and location of openings.** Two openings shall be provided, the top edge of one within 1 foot (304 mm) of the ceiling of the room and the bottom edge of one within 1 foot (304 mm) of the floor.

*Section 703.1.1, is revised to read:*

**703.1.1 Number and location of openings.** Two openings shall be provided, the top edge of one within 1 foot (304 mm) of the ceiling of the room and the bottom edge of one within 1 foot (304 mm) of the floor.

*Section 704.1.1, is revised to read:*

**704.1.1 Number and location of openings.** Two openings shall be provided, the top edge of one within 1 foot (304 mm) of the ceiling of the room and the bottom edge of one within 1 foot (304 mm) of the floor.

*Section 908.8, is added to read:*

**908.8 Evaporative coolers.** New or replacement evaporative cooling equipment shall not be installed without a recirculating water pump system. It shall be unlawful to disconnect or bypass any evaporative cooling system recirculating water pump. A maximum of 1.5 gallons per hour per 1,000 cfm of bleed off water may be discharged to prevent the buildup of sediment.

Section 2. Any person found guilty of violating this Ordinance shall, in addition to any other applicable penalty, is subject to the following:

**105.6 Suspension or revocation.** The building official is authorized to suspend or revoke a permit issued under the provisions of this code wherever the permit is

issued in error or on the basis of incorrect, inaccurate or incomplete information, or in violation of any ordinance or regulation or any of the provisions of this code.

**110.4 Revocation.** The building official is authorized to, in writing, suspend or revoke a certificate of occupancy or completion issued under the provisions of this code wherever the certificate is issued in error, or on the basis of incorrect information supplied, or where it is determined that the building or structure or portion thereof is in violation of any ordinance or regulation or any of the provisions of this code

**113.4 Violation penalties.** Any person who violates a provision of this code or fails to comply with any of the requirements thereof or who erects, constructs, alters or repairs a building or structure in violation of the approved construction documents or directive of the building official, or of a permit or certificate issued under the provisions of this code, shall be subject to penalties as prescribed by law.

Section 3. The repeal of any provision of the Scottsdale Revised Code effectuated by this Ordinance does not affect the rights and duties that matured or penalties that were incurred and proceedings that were begun before the effective date of this Ordinance.

Section 4. If any section, subsection, sentence, clause, phrase or portion of this ordinance or any part of these amendments to the International Mechanical Code, 2006 Edition, adopted herein by reference is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdictions, such decision shall not affect the validity of the remaining portions thereof. If there is any conflict or inconsistency between the provisions of this ordinance, the more restrictive provisions apply.

Section 5. The effective date of this ordinance shall be thirty (30) days after adoption.

PASSED AND ADOPTED BY THE Council of the City of Scottsdale, Maricopa County, Arizona this \_\_\_\_\_ day of \_\_\_\_\_, 2011.

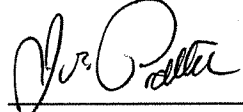
ATTEST:

CITY OF SCOTTSDALE  
A municipal corporation

\_\_\_\_\_  
Carolyn Jagger  
City Clerk

\_\_\_\_\_  
W. J. "Jim" Lane  
Mayor

APPROVED AS TO FORM:  
OFFICE OF THE CITY ATTORNEY



\_\_\_\_\_  
Bruce Washburn, City Attorney  
By Joe Padilla, Sr. Assistant City Attorney

8223452v1

Ordinance No.3930  
Page 3 of 3

## ORDINANCE NO. 3931

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SCOTTSDALE, MARICOPA COUNTY, ARIZONA, AMENDING CHAPTER 31, ARTICLE IV, SECTION 31-46 AND REPEALING SECTION 31-47 OF THE SCOTTSDALE REVISED CODE AND ADOPTING A NEW SECTION 31-47 OF THE SCOTTSDALE REVISED CODE RELATING TO THE ELECTRICAL CODE.

BE IT ORDAINED by the City Council of the City of Scottsdale, Arizona, as follows:

Section 1. Section 31-46 of the Scottsdale Revised Code is hereby amended and shall read as follows:

### **Sec. 31-46. Adoption.**

The following documents are adopted by reference and shall be the electrical code of the city. Three (3) copies of each shall at all times remain in the office of the city clerk and be open to inspection.

- (1) The National Electrical Code, 2005 Edition, as published by the National Fire Protection Association and the 2006 ICC Electrical Code Administrative Provisions, as published by the International Conference of Building Officials and declared public records by Resolution # 7301 of the City of Scottsdale, are hereby referred to, adopted and made a part hereof as if fully set out in this ordinance, ~~are adopted by reference~~ and shall be the electrical code of the city. Three (3) copies of the same shall at all times remain in the office of the city clerk and be open to inspection.
- (2) The City of Scottsdale Second Amendments to the 2006 ICC Electrical Code Administrative Provisions and Second Amendments to the National Electrical Code, 2005 Edition, declared public records by Resolution # 8596 of the City of Scottsdale, are hereby referred to, adopted and made a part hereof as if fully set out in this ordinance. Three (3) copies of the same shall at all times remain in the office of the city clerk and be open to public inspection.

Section 2. Section 31-47 **Amendments** of the Scottsdale Revised Code is hereby repealed and replaced by a new Section 31-47, which shall read as specified in those certain documents entitled "City of Scottsdale Second Amendments to the 2006 ICC Electrical Code Administrative Provisions and Second Amendments to the National Electrical Code, 2005 Edition," declared to be public records by Resolution # 8596 and hereby referred to, adopted and made a part hereof as if fully set out in this ordinance.

Section 3. Any person found guilty of violating this Ordinance shall, in addition to any other applicable penalty, is subject to the following:

**105.6 Suspension or revocation.** The building official is authorized to suspend or revoke a permit issued under the provisions of this code wherever the permit is issued in error or on the basis of incorrect, inaccurate or incomplete information, or in violation of any ordinance or regulation or any of the provisions of this code.

**110.4 Revocation.** The building official is authorized to, in writing, suspend or revoke a certificate of occupancy or completion issued under the provisions of this code wherever the certificate is issued in error, or on the basis of incorrect information supplied, or where it is determined that the building or structure or portion thereof is in violation of any ordinance or regulation or any of the provisions of this code.

**113.4 Violation penalties.** Any person who violates a provision of this code or fails to comply with any of the requirements thereof or who erects, constructs, alters or repairs a building or structure in violation of the approved construction documents or directive of the building official, or of a permit or certificate issued under the provisions of this code, shall be subject to penalties as prescribed by law.

Section 4. The repeal of any provision of the Scottsdale Revised Code effectuated by this Ordinance does not affect the rights and duties that matured or penalties that were incurred and proceedings that were begun before the effective date of this Ordinance.

Section 5. If any section, subsection, sentence, clause, phrase or portion of this ordinance or any part of the City of Scottsdale Second Amendments to the 2006 ICC Electrical Code Administrative Provisions and Second Amendments to the National Electrical Code, 2005 Edition, adopted herein by reference is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions thereof. If there is any conflict or inconsistency between the provisions of this ordinance, the more restrictive provisions apply.

Section 6. The effective date of this ordinance shall be thirty (30) days after adoption.

PASSED AND ADOPTED BY THE Council of the City of Scottsdale, Maricopa County, Arizona this \_\_\_\_\_ day of \_\_\_\_\_, 2011.

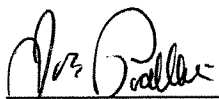
ATTEST:

CITY OF SCOTTSDALE  
A municipal corporation

\_\_\_\_\_  
Carolyn Jagger  
City Clerk

\_\_\_\_\_  
W.J. "Jim" Lane  
Mayor

APPROVED AS TO FORM:  
OFFICE OF THE CITY ATTORNEY



\_\_\_\_\_  
Bruce Washburn, City Attorney  
By Joe Padilla, Sr. Assistant City Attorney

**RESOLUTION NO. 8596**

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SCOTTSDALE, MARICOPA COUNTY, ARIZONA, DECLARING AS A PUBLIC RECORD THOSE CERTAIN DOCUMENTS FILED WITH THE CITY CLERK OF THE CITY OF SCOTTSDALE ENTITLED, "SECOND AMENDMENTS TO THE 2006 ICC ELECTRICAL CODE ADMINISTRATIVE PROVISIONS AND SECOND AMENDMENTS TO THE NATIONAL ELECTRICAL CODE, 2005 EDITION."

WHEREAS, the Building Department of the City of Scottsdale wishes to repeal and replace the existing amendments to the National Electrical Code, 2005 Edition, and the Amendments to the 2006 ICC Electrical Code Administrative Provisions; and

WHEREAS, state law permits cities to declare documents as public record.

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Scottsdale as follows:

Section 1. Those certain documents entitled "City of Scottsdale Second Amendments to the 2006 ICC Electrical Code Administrative Provisions and Second Amendments to the National Electrical Code, 2005 Edition," are hereby declared to be a public record and three copies are ordered to remain on file in the office of the City Clerk and kept available for public use and inspection.

PASSED AND ADOPTED BY THE Council of the City of Scottsdale, Maricopa County, Arizona this \_\_\_\_\_ day of \_\_\_\_\_, 2011.

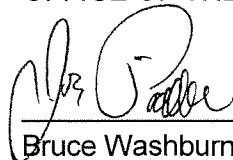
ATTEST:

CITY OF SCOTTSDALE  
A municipal corporation

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Mayor

APPROVED AS TO FORM:  
OFFICE OF THE CITY ATTORNEY



\_\_\_\_\_  
Bruce Washburn, City Attorney  
By Joe Padilla, Sr. Assistant City Attorney



**SECOND AMENDMENTS TO THE 2006 ICC  
ELECTRICAL CODE ADMINISTRATIVE  
PROVISIONS AND SECOND AMENDMENTS  
TO THE NATIONAL ELECTRICAL CODE,  
2005 EDITION**

**ELECTRICAL CODE AMENDMENTS**

**Ordinance No. 3931**

**PLANNING, NEIGHBORHOOD & TRANSPORTATION  
DEPARTMENT**

## **Section 31-47 – Amendments**

***(a) The ICC Electric Code – Administrative Provisions, 2006 Edition, adopted by Scottsdale Revised Code Section 31-46 is amended in the following respects:***

- 1) Where reference is made to the "International Building Code," substitute "Scottsdale Revised Code, Chapter 31, Article III".
- 2) Where reference is made to the "International Residential Code," substitute "Scottsdale Revised Code, Chapter 31, Article III".
- 3) Where reference is made to the "International Fire Code," substitute "Scottsdale Revised Code, Chapter 36, Article II".
- 4) Where reference is made to any section of the "International Mechanical Code," substitute "Scottsdale Revised Code, Chapter 31, Article VI".

## **CHAPTER 1**

*Section 101.1 is amended to read:*

Section 101.1 Title. These regulations shall be known as the Electrical Code of the City of Scottsdale and shall be cited as such and will be referred to herein as "this code".

*Section 102.6 is amended to read:*

Section 102.6 Referenced Codes and Standards. The codes and standards referenced in this code shall be those that are listed in Chapter 13, and in Scottsdale Revised Code Chapter 31, Article III, and such codes and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between provisions of this code and referenced codes or standards, the provisions of this code shall apply.

## **CHAPTER 2**

*Section 201.3 is amended to read :*

Section 201.3 Terms defined in other codes. Where terms are not defined in this code and are defined in NFPA 70 or Scottsdale Revised Code Chapter 31, Article III, such terms shall have meanings ascribed to them as in those codes.

## **CHAPTER 3**

*Delete Section 301 and substitute the following:*

Section 301 Electrical inspections shall be performed as set forth in Scottsdale Revised Code Chapter 31, Article III.

*Delete Section 302 and substitute the following:*

Section 302 Duties and Powers of the Building Official shall be as set forth in Scottsdale Revised Code Chapter 31, Article III.

*Delete Section 303 and substitute the following:*

Section 303 Certificate of occupancy shall be as set forth in Scottsdale Revised Code Chapter 31, Article III.

#### **CHAPTER 4**

*Section 402.5 is amended to read:*

Section 402.5 Time limitation of application. An application for a permit for any proposed work or operation shall be deemed to have been abandoned 180 days after the date of filing, unless such application has been pursued in good faith or a permit has been issued; except that the code official is authorized to grant one or more extensions of time for additional periods not exceeding 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

*Section 403.3 is amended to read:*

Section 403.3 Extensions. The code official is authorized to grant, in writing, one or more extensions of the time period of a permit for periods of not more than 180 days each. Such extensions shall be requested by the permit holder in writing and justifiable cause demonstrated.

*Delete Section 404.2 and substitute the following:*

Section 404.2 Schedule of permit fees. Fees for each permit shall be paid as set forth in Scottsdale Revised Code Chapter 46, Article VII.

#### **CHAPTER 5**

*Delete Section 504.3 and substitute the following:*

Section 504.3 Retention of construction documents shall be as set forth in Scottsdale Revised Code Chapter 31, Article III.

#### **CHAPTER 11**

*Delete Chapter 11 and substitute the following:*

Chapter 11 Means of Appeal shall be as set forth in Scottsdale Revised Code Chapter 31, Article III.

*Section 1201.1.1 Adoption is amended to read:*

Electrical systems and equipment shall be designed and constructed in accordance with the International Residential Code as amended and adopted in Scottsdale Revised Code, Chapter

31, Article III or NFPA 70 as amended and adopted in Scottsdale Revised Code, Chapter 31, Article IV as applicable, except as otherwise provided in this code.

***(b) The National Electric Code, 2005 Edition, adopted by Scottsdale Revised Code Section 31-46 is amended in the following respects:***

*ARTICLE 230, Section V Service Equipment - General is revised by adding 230-63 to read:*

**230-63. Location.** All service equipment rated 1000 amperes or more located inside a building shall be enclosed within a room or space separated from the rest of the building by not less than one-hour fire-resistive occupancy separation.

*ARTICLE 240, Section VII Circuit Breakers is revised to read:*

**240.86 Series Ratings.**

Where a circuit breaker is used on a circuit having an available fault current higher than the marked interrupting rating by being connected on the load side of an acceptable overcurrent protective device having a higher rating, the circuit breaker shall meet the requirements specified in (A) or (B), (C) **and (D).**

**(D) Existing Buildings.** In existing buildings where the tested combinations in (b) above are not marked, one of the following conditions shall apply.

(1) The end-use equipment manufacturer shall investigate the equipment for conformance with the product test standard and, where applicable, field mark the equipment with the recognized combinations of series rated devices. Any field markings applied shall comply with the requirements of the end-use equipment manufacturer and shall bear the name and/or trademark of the manufacturer.

(2) Where the combination of series rated devices are marked, but not all combinations are shown, the end-use equipment manufacturer shall investigate the equipment and, where applicable, field mark the equipment with the additional recognized combinations of series rated devices. Any field markings applied shall comply with the requirements of the end-use equipment manufacturer and shall bear the name and/or trademark of the manufacturer.

(3) Under electrical supervision, the combinations of series rated devices in the end-use equipment shall be permitted to be field evaluated for conformance with the manufacturer's requirements. The end-use equipment shall be field marked with the additional recognized combinations of series rated devices. The field markings applied shall be permanent, legible and visible, and bear the name of the engineer evaluating the system. The marking shall state

**"The combinations of series rated devices was field evaluated by (*name of Arizona registered electrical engineer*) and determined to be safe for use and in accordance with the manufacturer's requirements."**

*ARTICLE 250 Section VI Equipment Grounding and Equipment Grounding Conductors is revised to read:*

## 250-118. Types of Equipment Grounding Conductors

The equipment grounding conductor run with or enclosing the circuit conductors shall be one or more or a combination of the following:

- (4) Electrical metallic tubing with an individual equipment grounding conductor.
- (5) Listed flexible metal conduit with an individual equipment grounding conductor meeting all the following conditions:
  - a. The conduit is terminated in fittings listed for grounding.
  - b. The circuit conductors contained in the conduit are protected by overcurrent devices rated at 20 amperes or less.
  - c. The combined length of flexible metal conduit and flexible metallic tubing and liquidtight flexible metal conduit in the same ground return path does not exceed 1.8 m (6 ft).
  - d. Where used to connect equipment where flexibility is necessary after installation, an equipment grounding conductor shall be installed.
- (6) Listed liquidtight flexible metal conduit with an individual equipment grounding conductor meeting all the following conditions:
  - a. The conduit is terminated in fittings listed for grounding.
  - b. For metric designators 12 through 16 (trade sizes through ½), the circuit conductors contained in the conduit are protected by overcurrent devices rated at 20 amperes or less.
  - c. For metric designators 21 through 35 (trade sizes ¾ through 1¼), the circuit conductors contained in the conduit are protected by overcurrent devices rated not more than 60 amperes and there is no flexible metal conduit, flexible metallic tubing, or liquidtight flexible metal conduit in trade sizes metric designators 12 through 16 (trade sizes through ½) in the grounding path.
  - d. The combined length of flexible metal conduit and flexible metallic tubing and liquidtight flexible metal conduit in the same ground return path does not exceed 1.8 m (6 ft).
  - e. Where used to connect equipment where flexibility is necessary after installation, an equipment grounding conductor shall be installed.
- (7) Flexible metallic tubing with an individual equipment grounding conductor where the tubing is terminated in fittings listed for grounding and meeting the following conditions:
  - a. The circuit conductors contained in the tubing are protected by overcurrent devices rated at 20 amperes or less.
  - b. The combined length of flexible metal conduit and flexible metallic tubing and liquidtight flexible metal conduit in the same ground return path does not exceed 1.8 m (6 ft). Flexible metallic tubing with an individual equipment grounding conductor and where the tubing is terminated in fittings listed for grounding and meeting all the following conditions.

*ARTICLE 310, Conductors for General Wiring is revised to read:*

### **310-15(B)(6)**

#### **(6) 120/240-Volt, 3-Wire, Single-Phase Dwelling Services and Feeders.**

For individual dwelling units of one family, two-family, and multifamily dwellings, conductors, as listed in Table 310.15(B)(6), shall be permitted as 120/240-volt and

120/208 volt, 3-wire, single-phase service-entrance conductors, service lateral conductors, and feeder conductors that serve as the main power feeder to each dwelling unit and are installed in raceway or cable with or without an equipment grounding conductor. For application of this section, the main power feeder shall be the feeder(s) between the main disconnect and the lighting and appliance branch-circuit panelboards(s). The feeder conductors to a dwelling unit shall not be required to have an allowable ampacity rating greater than their service-entrance conductors. The grounded conductor shall be permitted to be smaller than the ungrounded conductors, provided the requirements of 215.2, 220.61, and 230.42 are met.

**Table 310.15(B)(6) Conductor Types and Sizes for 120/240-Volt and 120/208-Volt, 3-Wire, Single-Phase Dwelling Services and Feeders.** Conductor Types RHH, RHW, RHW-2, THHN, THHW, THW, THW-2, THWN, THWN-2, XHHW, XHHW-2, SE, USE, USE-2

Conductor (AWG or kcmil)		Service or Feeder Rating (Amperes)	
Copper	Aluminum or Copper-Clad Aluminum	$\leq 30^{\circ}\text{C} (86^{\circ}\text{F})$	$> 30^{\circ}\text{C} (86^{\circ}\text{F})$
4	2	100	---
3	1	110	---
2	1/0	125	<u>100</u>
1	2/0	150	<u>125</u>
1/0	3/0	175	<u>150</u>
2/0	4/0	200	<u>175</u>
3/0	250	225	<u>200</u>
4/0	300	250	<u>225</u>
250	350	300	<u>250</u>
350	500	350	<u>300</u>
400	600	400	<u>350</u>
500	750	---	400

**CAUTION - UTILITY COMPANY CONDUCTOR SIZE REQUIREMENTS MAY VARY.  
CONSULT WITH SERVING UTILITY PRIOR TO INSTALLATION.**

*ARTICLE 334, Nonmetallic-Sheathed Cable: Types NM, NMC, and NMS is revised to read:*

**334.10 Uses Permitted.**

Type NM, Type NMC, and Type NMS cables shall be permitted to be used in the following:

- (1) One- and two-family dwellings.
- (2) Multifamily dwellings permitted to be of Types III, IV, and V construction except as prohibited in 334.12.

Delete (3) and (4)

**334.12 Uses Not Permitted.**

**(A) Types NM, NMC, and NMS.** Types NM, NMC, and NMS cables shall not be permitted as follows:

- (1) In any dwelling or structure not specifically permitted in 334.10(1), (2), or in any multifamily dwelling or other structure exceeding three floors above grade.

For the purpose of this article, the first floor of a building shall be that floor that has 50 percent or more of the exterior wall surface area level with or above finished grade. One additional level that is the first level and not designed for human habitation and used only for vehicle parking, storage, or similar use shall be permitted.

- (2) Exposed in dropped or suspended ceilings in other than one- and two-family and multifamily dwellings
- (3) As service-entrance cable
- (4) In commercial garages having hazardous (classified) locations as defined in 511.3
- (5) In theaters and similar locations, except where permitted in 518.4(B)
- (6) In motion picture studios
- (7) In storage battery rooms
- (8) In hoistways or on elevators or escalators
- (9) Embedded in poured cement, concrete, or aggregate
- (10) In hazardous (classified) locations

**(B) Types NM and NMS. Types NM and NMS cables shall not be used under the following conditions or in the following locations:**

- (1) Where exposed to corrosive fumes or vapors
- (2) Where embedded in masonry, concrete, adobe, fill, or plaster
- (3) In a shallow chase in masonry, concrete, or adobe and covered with plaster, adobe, or similar finish
- (4) Where exposed or subject to excessive moisture or dampness

*ARTICLE 358, Electrical Metallic Tubing: Type EMT is amended to read:*

**358.10 Uses Permitted.**

**(A) Exposed and Concealed.** The use of EMT shall be permitted for both exposed and concealed work.

**Delete (B)**

**(C) Wet Locations.** All supports, bolts, straps, screws, and so forth shall be of corrosion-resistant materials or protected against corrosion by corrosion-resistant materials. Hot dipped galvanized is not considered an acceptable corrosion-resistant material by itself.

**358.12 Uses Not Permitted.**

EMT shall not be used under the following conditions:

- (1) Where, during installation or afterward, it will be subject to severe physical damage
- (2) Where protected from corrosion solely by enamel
- (3) In cinder concrete or cinder fill where subject to permanent moisture unless protected on all sides by a layer of noncinder concrete at least 50 mm (2 in.) thick or unless the tubing is at least 450 mm (18 in.) under the fill
- (4) In any hazardous (classified) location except as permitted by 502.10, 503.10, and 504.20
- (5) For the support of luminaires (fixtures) or other equipment except conduit bodies no larger than the largest trade size of the tubing
- (6) Where practicable, dissimilar metals in contact anywhere in the system shall be avoided to eliminate the possibility of galvanic action.

**Exception:** Aluminum fittings and enclosures shall be permitted to be used with steel EMT where not subject to severe corrosive influences.

- (7) Installed in concrete, in direct contact with the earth, or in areas subject to severe corrosive influences.

690.31(E) is amended by the following

**690-31(E) Direct-Current Photovoltaic Source and Output Circuits Inside a Building.**

Where direct current photovoltaic source or output circuits ~~of~~ to a utility-interactive inverter from a building-integrated or other photovoltaic system are run inside a building or structure, they shall be contained in metallic raceways or enclosures from the point of penetration of the surface of the building or structure to the first readily accessible disconnecting means. The disconnecting means shall comply with 690.14(A) through 690.14(D).

*FPN: It has been discovered that the use of the word "of" is a typo in the 2005 and 2008 codes. The word "of" should be "to" and will be corrected in the 2011 NEC*

Article 810 is amended by adding the following:

**V. Public Safety Radio Amplification Systems**

**810-80. Radio Coverage.** Except as otherwise provided, no person, firm, or organization shall maintain, own, erect or construct any building or structure which is used for commercial, multi-family, or institutional use or cause the same to be done which fails to support adequate radio coverage to public safety workers, including but not limited to police officers and firefighters. A certificate of occupancy shall not be issued for any building or structure which fails to comply with this requirement.

The frequency range necessary to support public safety radio communications shall be 806MHz to 824MHz and 851MHz to 869MHz, and readily adaptable to other public safety emergency radio frequencies in the 700MHz radio frequency band, specifically 769MHz to 775MHz and 799MHz to 805MHz. The public safety radio amplification system shall be capable of modification or expansion in the event frequency changes are required by the FCC or additional frequencies are made available by the FCC.

The minimum acceptable radio signal coverage shall include both a measurement of signal strength in decibel milliwatt (dBm) and a measurement in delivered audio quality (DAQ) that meet or exceed all of the following:—

(A) A minimum radio signal strength of -95 dBm in 95% of the area on each floor of the building when transmitting to and from the City of Scottsdale public safety communications systems.

(B) A minimum average delivered audio quality (DAQ) rating of three (3) for signal strength and intelligibility, as determined by City, in 95% of the area on each floor of the building when transmitting to and from the City of Scottsdale public safety communications systems.

(C) A 95% reliability factor.

(D) A 100% coverage level at the minimum levels set forth in 810-80(a) and 810-80(b) in all stairwells, stairways, and designated emergency personnel ingress and egress paths.

**810-81. Signal Quality.** The minimum acceptable DAQ ratings shall be met at all times. The signal strength and the intelligibility rating scales shall apply to all portable radio test locations on the property:

Signal strength:

- 0 - no detectable signal
- 1 - barely detectable
- 2 - detectable with difficulty
- 3 - detectable at all times
- 4 - strong signal, detectable at all times

Intelligibility:

- 0 - unintelligible
- 1 - intelligible with extreme difficulty (many repetitions required)
- 2 - intelligible with difficulty (repetition required)
- 3 - intelligible (repetition seldom required)
- 4 - intelligible at all times

An applicant shall provide to the building official sufficient evidence or proof showing compliance with this provision of the code before a certificate of occupancy is issued. The plans and specifications, and other data, filed by an applicant for a certificate of occupancy shall be reviewed by the building official or other qualified personnel.

**810-82. Enhanced Amplification Systems.** Amplification systems are allowed under Federal Communication Commission (FCC) Rules CFR Part 47, 90.219. Buildings and structures which cannot support the required minimum level of radio coverage shall be equipped with FCC certified amplification or booster systems that include either a radiating cable system or an internal distributed antenna system (DAS) with or without signal boosters in order to achieve the required minimum radio coverage:

(A) All active in-building coverage devices shall be FCC Part 90 Type Certified and capable of modification or expansion in the event frequency changes are required by the FCC or additional frequencies are made available by the FCC.

(B) All system components shall be 100% compatible with analog and digital modulation after installation without additional adjustments or modifications.

(C) The signal booster shall include filters to reject frequencies below and above the public safety bands by a minimum of 35dB.

(D) The maximum propagation delay (group delay) of any in-building signal booster shall not exceed 15 microseconds. The delay value includes the cumulative delays in signal boosters, coaxial cables, fiber optics, etc. used within the in-building system.

(E) Antenna-to-antenna isolation – the outside-to-inside antenna isolation (loss) shall be at least 16dB more than the highest gain reading of the boosted inside signal.

(F) Active system devices shall be encased in NEMA 4 dust/waterproof case and clearly labeled "City of Scottsdale Public Safety Radio."

(G) If any part of the installed system or systems contains an electrically powered component, the system shall be capable of operating on an independent battery and/or generator system for a minimum period of four (4) hours without external power input. The battery system shall be designed to automatically charge in the presence of an external power input.

#### **810-83. Testing Procedures.**

**(A) Initial Tests.** The building official shall require tests as evidence of compliance to be performed by a BDA equipment manufacturer certified technician or an FCC licensed technician. The building owner is responsible for all costs of performing these tests. The building owner shall submit the test results and documentation to the City's radio communications office (See Exhibit A). Upon review of the results for the signal strength tests, the City's radio communications engineer will schedule the final system acceptance test and will perform the DAQ tests using a portable radio unit.

To verify coverage for final system acceptance, the City's radio engineer or designated staff member will perform radio signal strength and intelligibility tests in locations throughout the building. The locations selected will be consistent with processes and procedures provided in the Telecommunications Industry Association's Telecommunications Systems Bulletin, TIA/TSB88-B, Chapter 8 and Annex E, and the test area as specified in 810-82(B).

**(B) Testing Area.** The coverage test must be performed after all windows, building cladding, and drywall have been installed on all floor levels. Each floor of the building shall be divided into a grid of approximately 40 equal areas. The tests shall be conducted using a City public safety portable radio with the tester verbally communicating through the City's radio communications system.

A spot located approximately in the center of a grid area will be selected for the test, then the radio will be keyed to verify two-way communications to and from the test location through the City's radio communications system. Once a spot is selected, prospecting for a better spot within the grid area will not be permitted. A maximum of two non-adjacent areas will be allowed to fail the test.

In the event that three (3) areas fail the test, in order to be statistically more reliable, the floor may be divided into 80 equal areas; a maximum of four (4) non-adjacent areas will be allowed to fail the test. If the floor area fails the 80 equal areas test the building owner shall be responsible for bringing the area into compliance before a re-test is conducted by a representative of the City's radio communications office.

The results of testing shall be documented and to a level of detail that demonstrates that the building or structure is in compliance with the coverage levels and signal quality standards set forth in section 810-80.

**(C) Annual Tests.** Upon providing five (5) days written notice to the property owner or the property owner's representative, the City's radio communications or public safety

personnel shall have the right to enter onto the property and into buildings or structures, at times reasonable to conduct field testing of radio signal quality and coverage levels.

**(D) Radio Signal Strength Test Equipment.** Signal strength tests shall be conducted using a calibrated spectrum analyzer test set utilizing an omni-directional antenna with minimal gain. The resolution bandwidth shall be set to 10KHz.

**(E) Delivered Audio Quality Test Set.** DAQ tests will be performed using a Motorola XTS5000, or equivalent portable radio. All tests shall be performed with the radio unit antenna at a height of four (4) feet above the floor or ground.

**(F) Buildings that Fail the Annual Radio Signal Strength and Coverage Test.** Should an annual test fail to meet compliance, the owner or property manager shall bring the radio signal strength and coverage into compliance with the minimum levels within sixty (60) days of receiving the test results. Any person, corporation, association or enterprise who fails to bring the radio signal strength into compliance within the sixty (60) day timeframe is subject to provisions of Scottsdale Revised Code, Chapter 31, Article IV, Section 31-48.

**(G) Additional Information.** Direct questions about the processes and procedures for the initial and annual testing of public safety radio signal strength and quality to the City's radio communications office at 480 312-2264 or via email at [radioengineer@scottsdaleaz.gov](mailto:radioengineer@scottsdaleaz.gov).

**810-84. Uses Where Not Required.** This section shall not apply to any single-family residence. The requirements of this section may be waived by the City's radio communications office for buildings which do not have below grade spaces or parking. In such cases, the building owner shall obtain a waiver of this radio amplification requirement from the City's radio communications engineering manager. The waiver shall be in writing and must be submitted to the City's building official prior to receiving a certificate of occupancy.

**810-85. Applicability.** The provisions of this ordinance shall apply to all buildings or structures, except as noted in section 810-83 of this ordinance, which are used for commercial, multi-family, or institutional use, regardless of a change in ownership or a transfer of ownership.

**810-86. As-built Drawings.** The owner of a building or structure shall provide the City's radio communications engineer a set of detailed plans (as-built drawings) of the amplification and/or signal booster system as installed and operating in their building or structure. The plans shall be printed on 24"x36" paper and include the location of electronic amplification and signal booster equipment, the manufacturer and model of the electronic equipment, the routes of all cabling between the electronic equipment and antennas, the location of all antennas, and all electrical circuits and components serving the amplification or signal booster system, and such additional information as requested by the City.

**810-87. Modifications in Radio System.** In the event that the City or other public safety organization modifies its radio communications equipment or frequencies in any way that impairs the ability of the City or other public safety organizations to communicate with an existing amplification or signal booster system installed, tested and approved in accordance with this ordinance, the City or public safety organization may participate in the reasonable costs associated with reestablishing reliable public safety radio communications with the affected building or structure.

(A) In the event that changes to the public safety radio frequencies are required by the FCC or when additional frequencies are made available by the FCC, all public safety radio amplification systems installed by the building owner, property owner or their agent after January 1, 2011, shall be modified, adjusted or expanded to amplify the new public safety radio frequencies. The building or property owner is responsible for any and all costs to properly modify, adjust or expand the amplification system. Prior approval of a public safety radio coverage system on previous frequencies does not exempt this requirement.

**810-88. Radio Signals Affected by New Building or Structure.** In the event that a building or structure that is in conformance with the provisions of this ordinance is subsequently found to be out of conformance due to the construction of a nearby building or structure, the City or public safety organization may participate in paying the reasonable costs associated with reestablishing reliable public safety radio communications with the affected building or structure. In cases where the construction of a new building or structure causes an existing building or structure that was in conformance with section 810-10 to then be out of conformance, and both the existing building or structure and the newly constructed building or structure are owned by, or is located on land or real property that is owned by the same corporation, partnership, business entity or persons, then such owner shall be fully responsible for the costs of bringing the non-conforming building or structure in conformance to the requirements of section 810-80.

**810-89. Building and Property Access to Install Antennas and Equipment.** In cases where a newly constructed or modified building, or a newly constructed or modified structure is deemed to have caused a building or structure that was in conformance with the radio coverage levels to be out of conformance, the owner of the newly constructed building or structure and its property owner shall allow the City to install a public safety radio amplification system on or within its building, structure or property without compensation or reimbursement to building owner or to the property owner for rent, fees, payments or any financial encumbrance. The amplification system will be installed to bring the non-complying structure into compliance with the public safety radio signal coverage requirements.

**810-90. Radio Frequency Communications Operations Restriction.** The owner of a building, the owner of a structure and any occupant of the building or structure shall not install, operate, or allow the use of equipment, methodology or technology that interferes or is likely to interfere with the optimum effective use or operation of the City's fire, emergency or other communication equipment, methodology or technology (i.e., voice or other data carrying, receiving or transmitting equipment). If such interference should occur, the building owner or occupant shall immediately discontinue using the equipment, methodology or technology that causes the interference until corrective measures are taken to alter the communication equipment to eliminate such interference. Any such corrective measures shall be made at no cost to the City. Upon request from the City, the building owner or occupant shall give to the City Radio Communications Engineer a list of the radio frequencies in use at the building or property.

**EXHIBIT A**

**City of Scottsdale**  
**BDA Installation RF Power Measurements**

<b>Provide the following data for the downlink band.</b>		
1.	Ambient Scottsdale downlink signal strength @ donor antenna =	(dBm)
2.	Donor antenna gain +	(dB)
3.	Donor antenna cable system loss -	(dB)
4.	Total donor antenna system gain =	(dB)
5.	Downlink signal level at input to amplifier =	(dBm)
6.	Amplifier gain +	(dB)
Provide the isolation measurement between the donor antenna and the indoor antenna system		(dB)

For questions about the processes and procedures for the initial testing of public safety radio signal strength and quality, contact the City of Scottsdale's radio communications office at 480 312-2264 or via email at [radioengineer@scottsdaleaz.gov](mailto:radioengineer@scottsdaleaz.gov).